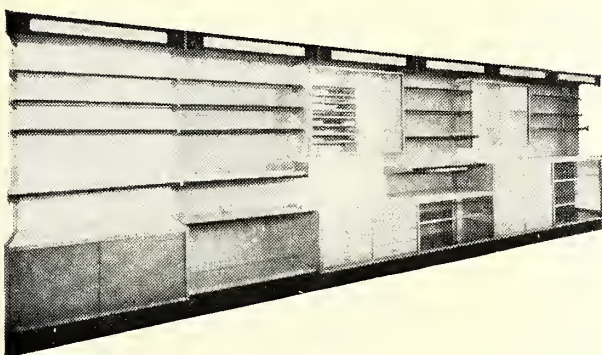


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## CHEMIST AND DRUGGIST

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and all sections of the drug, pharmaceutical,  
fine chemical, cosmetics, and allied industries

*Official organ of the Pharmaceutical Society of Ireland  
and of the Pharmaceutical Society of Northern Ireland*

Volume 187

April 8, 1967

No. 4547

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# C&D

## CHEMIST AND DRUGGIST

Volume 187

APRIL 8 1967

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## Council Candidates 1967

### NEWCOMERS AMONG 22 CONTESTANTS

THE following have accepted nomination as candidates for the Council of the Pharmaceutical Society of Great Britain at the election, 1967.

James Pirie BANNERMAN, Glasgow.  
 Christopher Harold BLENKIRON, Wigan.  
 Doreen BOYES, London.  
 Thomas Dalgleish CLARKE, Manchester.  
 Raymond DICKINSON, Newcastle.  
 Maxwell GORDON, Leeds.  
 Nicholas Arthur HERDMAN, New Barnet.  
 Kenneth HOLLAND, Upminster, Essex.  
 Keith JENKINS, Bovingdon, Herts.  
 Estelle Josephine Mary LEIGH, Aughton, Lancs.  
 Jacob LEVY, Salford.  
 Enid LUCAS-SMITH, Slough.  
 David Hopkin MADDOCK, Cardiff.  
 Archibald George Mervyn MADGE, Plymouth.  
 William MOTT, Sheffield.  
 John Annesley MYERS, Edinburgh.  
 William Felix PATTERSON, Sheffield.  
 Arthur Gordon REED, Leeds.  
 Charles Herbert Preston ROBINSON, Mansfield.  
 Donald ROYCE, Pontefract, Yorks.  
 David Norman SHARPE, London.  
 Donald Edward SPARSHOTT, Nottingham.

Three other members were nominated but did not accept nomination, namely Messrs. J. E. Jeffery, C. W. Mapleshorpe and W. J. Tristram.

The following have accepted nomination as candidates for election as auditors:-

Alan Hoyle BRIGGS, Slinfold, Sussex.  
 Harold Treves BROWN, Pinner, Middx.  
 John Capel HANBURY, Ware, Herts.  
 Sir Harry JEPHCOTT, Eastcote, Middx.  
 Leslie Gerald MATTHEWS, London.  
 Bertram Hiram SMITH, Manchester.

## Students' Association

**SOCIETY'S COUNCIL MAKES AN OFFER**  
 THE Council of the Pharmaceutical Society is offering official recognition and financial support to the British Pharmaceutical Students' Association. Discussions have been taking place between the two bodies on how contact may be maintained between them when the new academic year begins in the autumn. At that time all students entering schools of pharmacy will be

undergraduates reading for a Society-approved degree, and the old basis of contact—by registration with the Society as a student—will disappear. At present more than two-thirds of pharmacy students are voluntary members of B.P.S.A., paying an annual subscription to it. That revenue is supplemented in various ways, including an annual grant of £150 from the Society. The Council has offered additional financial support to the Association, but believes that it should remain autonomous. The B.P.S.A. has yet to signify acceptance of the suggestion, and agreement on details remains to be reached. Discussions could continue, states the Council, if the principles were accepted.

## Thrombosis and "the Pill"

### NOT ENOUGH LINK TO JUSTIFY BAN

AS stated by the Minister of Health in the Commons on April 4 (see p.325) an association has been established between the use of contraceptive pills and thrombo-embolic episodes. As the risk, however, is less than the incidence of thrombo-embolism in pregnant women and women in childbirth, there is no call to withdraw the pill from use. The evidence on which the statement was based was provided jointly by the

Committee on Safety of Drugs, the Medical Research Council and the College of General Practitioners and was concerned, unlike previous studies, with non-fatal as well as fatal cases. The number of cases followed up by the Committee itself of deaths from thrombo-embolic disorders in women of childbearing age between January and June 1966 was 200. Of that number, said Dr. Dennis Cahal (secretary to the Committee) on April 4, 85 per cent. had not been taking the pill. Of the remainder, and excluding women with a history of predisposition towards such disorders, 27 per cent. had. The risk, while it could not be quantified, had proved to be below that which existed in normal pregnancy and childbirth. "Women of child-bearing age," he pointed out, "were dying of thrombo-embolic episodes long before the pill was thought of." There were therapeutic and social values in the pill that might be thought to outweigh the risk involved, provided supply remained on prescription only and doctors were aware of the risks and related them to each individual. The risks were higher for women with medical histories of diabetes, hypertension, thrombo-embolic tendencies, anaemia and recent operations.

## Dosing by Computer

### POSSIBLE FUTURE TECHNIQUES

A DEMONSTRATION of techniques that might be adopted as a result of research by the National Cash Register Co., Ltd., was given by the company

**RETIREMENT PRESENTATION:** To mark the retirement of Mr. Leslie O. Smith (chief executive of Parke, Davis & Co., Hounslow, Middlesex, since 1946), sixty-three senior executives of the company, headed by Dr. Austin Smith (chairman of the board) and C. D. Smith (vice-president, international operations, Parke, Davis & Co., Detroit, U.S.A.) attended a dinner recently at which Mr. Smith was presented with a silver salver engraved with the names of the Parke-Davis board, a stereo radiogram and a book of signatures from members of the Hounslow staff. Mr. Smith joined the company in 1916. Mr. Smith is taking up residence in the Channel Islands.





recently in Croydon, Surrey. One new device, the Medset, was thought likely to prove useful in controlling the administration of drugs by putting nurses and hospital services in direct two-way communication with a computer. Patients' histories, and the rules governing drug administration, could be held in the computer's magnetic files and, when details of the patient and the drug to be used were keyed into the terminal unit, the computer could instantly check the patient's history for information on previous doses, known allergies, etc. At the same time the administration rules would be scanned so that the correct data could be automatically relayed to the terminal unit. As a by-product of the operation the computer could be programmed to bring up to date the pharmacy stock and accounting records. Medset could also cause a central computer to notify a hospital department (such as the x-ray unit) of

forthcoming requirements, simultaneously updating stock records and recording details for statistical analysis. Further uses were demonstrated of micro-encapsulation. They included paper tissues treated with menthol so that the menthol was released only when the tissue had been pressed in the hand.

## Chemists' Retail Sales

### BOARD OF TRADE STATISTICS

THE index of retail sales by chemists and photographic dealers in October was 107 (average monthly sales in 1961=100), an increase of 1 per cent. over the same period a year earlier. Figures recently issued by the Board of Trade also reveal the following indices for the month:—

Independent retailers	102 (—1 per cent.)
Multiple retailers	115 (+4 per cent.)
Co-operative Societies	101 (—4 per cent.)

The figures do not allow for receipts under the National Health Service.

## CHEMICAL INDUSTRY OUTPUT

### United States "three times more effective than Britain"

AMERICAN output per head in the chemical industry is perhaps three times the corresponding figure for Britain, according to the report of a team that visited North America recently under the auspices of the Economic Development Committee for the Chemical Industry (see *C. & D.*, October 29, 1966, p. 422).

The team believe that two-thirds of the difference in overall manning could be accounted for by the scale of operations which, as is well known, is much greater in American industry. While that factor cannot be modified overnight, it remains vital and is "not to be shrugged off as being beyond our control," says the report. The team suggest that the E.D.C. should examine the means by which the industry might rationalise so as to increase its scale of production. The visitors were impressed by the general level of quality and effectiveness of the managements met in America. They add that the best management in Britain, stood up to comparison with the Americans, but that the average fell well short. "Absolutely central to the American theory of business management is a highly developed profit-consciousness" though, the report adds, "great care was taken to avoid false economies." British companies are recommended to train their managements at all levels in the use of cost-control information.

More flexibility was found between the various trades, and between tradesmen and operators in America than in Britain. There were no "mates." Trainees used tools on productive work and line managers had greater control over manning, thereby "contributing to greater effectiveness of the work-force."

The report recommends that British management and unions consider whether existing incentive pay schemes are still relevant and effective. Such schemes had largely been abandoned by the American companies which the team visited as causing friction between management and men, outweighing any possible advantages.

Hours of work and the principles upon which fringe benefits were based in America were usually found to be the same for staff as for hourly-paid workers, and British managements and unions are recommended to examine how, and how quickly, fringe benefits and terms of employment for salaried and hourly-paid workers may be brought into alignment.

The team of eleven, under the leadership of Mr. J. K. Bottomley (production director, Albright & Wilson (Mfg.), Ltd.), spent three full weeks in North America.

Companies visited were:

American Cyanamid Co., Wallingford, Connecticut.
Borden Chemical Co., Fayetteville, North Carolina.
Dow Chemical Co., Midland, Michigan.
E. I. Du Pont de Nemours & Co., Wilmington, Delaware.
Monsanto Co., East St. Louis, Illinois.
National Lead Co., New York, N.Y.
Pittsburgh Plate Glass Co., New Martinsville, West Virginia.
Shawinigan Chemicals, Ltd., Varennes, Quebec.

In order better to identify differences in practices the team also visited seven British companies making similar products (and on about the same scale) as the American companies. They were:

Albright & Wilson (Mfg.) Ltd., Oldbury, Birmingham.
B.I.P. Chemicals, Ltd., Oldbury, Birmingham.
Distrene, Ltd., Sully, nr. Penarth, Glamorgan.
Laporte Titanium, Ltd., Stallingborough, Lincolnshire.
Murgatroyd's Salt and Chemical Co., Ltd., Sandbach, Cheshire.
Shell Chemicals U.K. Ltd., Carrington, Manchester.
The Borden Chemical Co. (U.K.), Ltd., North Baddesley, Southampton.

Processes studied included the manufacture of chlorine and caustic soda, ethylene, formaldehyde, urea and phenol formaldehyde resins, phosphoric acid, resin moulding powders, styrene and polystyrene, and titanium dioxide.

The report, "Manpower in the Chemical Industry," was published by H. M. Stationery Office on April 7, (price 5s.).

## Agricultural Chemicals

### MORE PRODUCTS APPROVED

THE Agricultural Departments of the United Kingdom announce that the following products have been approved under the Agricultural Chemicals Approval scheme:—

#### Fungicides

ZINC, MANGANESE, COPPER AND IRON DITHIO-CARBAMATE COMPLEX. For control of potato blight and hop downy mildew. WETTABLE POWDERS: Cufum Z (Universal Crop Protection, Ltd.).

#### Herbicides

IOXNYL is now approved for general weed control on new lawns sown from seed during the period of early establishment. SODIUM SALT FORMULATIONS: Atrilawn (May & Baker, Ltd.).

#### Miscellaneous

N-DIMETHYLAMINO SUCCINAMIC ACID. A chemical height retardant for chrysanthemums under glass including those grown in pots. LIQUID FORMULATIONS: B-Nine (Mirvale Chemical Co., Ltd.).

## IRISH NEWS

### THE NORTH

## Ulster Chemists

### ASSOCIATION'S EXECUTIVE MEETS

VENUE and date for the annual conference of the Ulster Chemists' Association was fixed at the monthly meeting of the executive committee in Belfast March 14. It is to take place at the Great Northern hotel, Rostrevor, co. Down, October 6—8.

Mr. T. I. O'Rourke (president) and Mr. W. H. Boyd were appointed to represent the Association at meetings along with representatives of the Local Pharmaceutical Committee, at a meeting of the Committee on Prescribing and Sickness Benefit in Belfast on April 6. The president briefly reported on the National Pharmaceutical Union's staff training conference held in Omagh, Belfast, and Portadown on March 7, 8 and 9 (see p. 324). He also reported on the visit of the N.P.U. pharmacy planning officer (Mr. K. E. Long) and said it had proved necessary to arrange another visit to complete the work. It was hoped that on his next visit Mr. Long would lecture to members.

Those present at the meeting included Mr. T. I. O'Rourke (in the chair); Miss D. Hall; Mrs. A. S. G. Watson; Messrs. H. S. Anderson; W. J. Bolon; W. H. Boyd; J. A. Brown; R. N. M. Clarke; W. E. Cooper; B. J. Deeny; J. J. Farrelly; H. W. Gamble; J. Knox; J. K. McGregor; J. McMillan; W. J. Moffett; M. C. Mooney; J. Paul; T. S. Purce; J. G. Stinson; A. Templeton and J. C. Wellwood. Mr. C. S. Ritchie (secretary) was in attendance.

## IRISH BREVITIES

### THE NORTH

THE Ulster Chemists' Golfing Association is holding a first-round knock-out competition (fee 20s.), at Carrickfergus golf club, co. Antrim, on April 12.

### THE REPUBLIC

THE following students were successful in the recent Second Professional examination conducted by the Pharmaceutical Society of Ireland. — Mary C. Crowley; Agatha G. Cunningham; Philomena Gallagher; J. J. Kelly; M. T. O'Leary and Mary C. F. Ryan.



## NEWS IN BRIEF

THE vice-chancellor of Oxford University is to ask the Home Secretary for an urgent national inquiry into the medical dangers of drug-taking.

WORK has commenced on a clinic in York Road, Seacroft, Leeds, designed and financed by two doctors to house three general practitioners, two dentists, a pharmacy, an optician and a chiropodist.

PRODUCTS accepted for the Design Index of the Council of Industrial Design, 28 Haymarket, London, S.W.1, in March included Ilfoprint photographic processors, models 951, 1501 and 2001, of Ilford, Ltd., Ilford, Essex.

THE Royal Institute of Chemistry, 30 Russell Square, London, W.C.1, has published "Chemistry, Medicine and Nutrition" — papers presented at a symposium held during the Institute's annual conference, 1966. Price is 21s.

THE eighth edition of the Subject Index of Statutory Instruments, memoranda and circulars published by the Institute of Hospital Administrators is available (price 4s. 6d. post free) from the Institute, 75 Portland Place, London, W.1.

IN the fight to save oil-soaked southwestern beaches, Evans Medical, Ltd., Speke, Liverpool, as pharmaceutical contractors to the Ministry of Defence, met an urgent call for 300 kilos of soft lanolin for use as a skin cream by workers who have been using skin-drying detergents.

THE national technical committee of the Society of Instrument Technology is setting up a study group on automation in design for manufacturing processes. Meetings start in early summer. Those interested should write to the Society's Office, 20 Peel Street, London, W.8.

THE Import Duty Drawbacks (No. 3) Order, 1967 (S.I. No. 470), just issued provides, among other things, for the allowance from April 6 of drawback of import duty on soaps and surface-active preparations and washing preparations containing soap manufactured from imported animal tallow.

## SPORT

## GOLF

EDINBURGH CHEMISTS' GOLF CLUB. The Club held a meeting at Duddington golf club on March 29. Results: Captain's prize, F. Hepburn (14), 72. Best scratch score, W. Renton, 77. Section No. 1. Tie, A. E. Graham (7), 74; J. B. Dunnett (14), 74. Section No. 2, I. R. Anderson (17), 72.

SOUTH LONDON AND SURREY PHARMACISTS GOLFING SOCIETY. A meeting was held at Purley Downs golf club on March 22 when a Stableford competition was played for the Scotia Bowl. Results: 1, G. Roberts, Wyke Green, (14), 36; 2, R. Hedges, Langley Park, (7), 34; 3, A. V. Hall, Banstead Downs, (16), 34. Scratch to fourteen handicap prize, M. Lewis, Shirley Park, (11), 31. Fifteen and Over Handicap prize, G. Philp, Langley Park, (16), 33. Best score on first nine holes, G. Stanton. Best score on last nine holes, S. M. Hutchinson. Special prize for committee man 34. — Officers for 1967-68 are as follows. — past or present, F. Jamieson, Shirley Park, President, J. L. Wrathall; Captain, F. C. Hodgson; Vice-captain, G. Howell; Treasurer, J. Widdocks; Secretary, G. E. Philp, 149 Wickham Way, Park Langley, Beckenham, Kent, (Telephone: Bec 33537).

## TOPICAL REFLECTIONS

By Xrayser

## Dinners

Branch committees, or those sections of them who have thrust upon them the duty of organising social activities, are deserving of sympathy and understanding. Last week's issue reported (p. 312) three such functions, all, it seems, highly successful. I note that the promise of short speeches at one of them is said to have increased the attendance by about 100 per cent. But that, to one who has attended dinners and dinner-dances over a good many years, may be an over-simplification of the situation. All, I feel sure, who have listened to after-dinner speakers are aware that the shortest speech can seem like an eternity, while one lasting as long as half-an-hour may leave one with a sense of regret that it has not gone on longer. Brevity, in my experience, is not always the soul of wit. I have been privileged to hear scholarly and witty contributions that have made the evening an event of outstanding pleasure. I have also—but perhaps you were present on that occasion and would prefer not to be reminded of it. Committees are usually only too conscious of their problems — the approach to a recognised star in the post-prandial firmament; the discovery that he had already accepted an invitation for that evening; the falling back on a second choice who has forgotten the yeast and fails to rise to the occasion; the reluctant invitation to one whose position makes it impossible to overlook him, though past performance does not fill the committee with gleeful anticipation — and so on. All who have, in a weak moment, agreed to organise a dinner-dance know the hazards, and are not at all unlikely to be reminded of them. Yet I cannot see why there should be any lack of support for a function that takes place only once a year and provides an opportunity to meet old friends. The social committee of any branch is deserving of gratitude for its efforts. Though getting beyond the "foot it bravely, strong or weary" time of life, I feel that gratitude can only take the form of buying tickets and putting in both an appearance and a tremulous "hear, hear" at a dramatic moment in the speech of the evening.

## Important Events

It is almost needless for me to say that the above soliloquy has no bearing whatever on the reports of the dinners that sparked off the train of thought. It must be heartening to the Pharmaceutical Society's Council, during an anxious period, to learn that there is still solid support in the country for its efforts to uplift general pharmaceutical standards. I endorse the words of Mr. C. W. Maplethorpe when he says that "those of us who have been concerned are still concerned that pharmacy should be practised professionally." Nothing that may be said in other places can alter our desire, and expressions of that desire, to improve general practice in a number of ways. It will still be possible for one pharmacist to set up the highest standards and keep to them. It will be possible for many thousands of pharmacists to accept the highest standards of their own free will, and guidance from the Council, prompted by local organisation, will find enthusiastic support. With the threat of health centres on a large scale, it becomes vitally important—in the public interest as well as our own—not to conceal our primary professional function under a mass of incongruous merchandise.

## Above the Door

As a loyal subject, exercising my right to vote with varying degrees of success at general elections, I feel it my bounden duty to read as much as possible of what takes place at Westminster. In a recent debate concerning the freedom of doctors to prescribe, I was mystified by a remark of Mr. J. W. Snow (parliamentary secretary) in reply to Dr. David Kerr. Dr. Kerr asked if Mr. Snow would please note that it was now possible for instructions to be given to chemists to dispense official preparations that were exactly analogous to proprietary preparations prescribed. "If chemists were to do this, it could conceivably save the N.H.S. a great deal of money," he said. Mr. Snow replied that he would like those words to be written above the door of every chemist in the land. My signwriter informs me that there is insufficient space.



## IRELAND'S PROPOSED HEALTH SCHEME

### Fine Gael fear a "Gilbertian" situation

GOVERNMENT proposals to bring chemists into the revised Irish health service would impose enormous distribution costs upon the health authority declared MR. RICHIE RYAN (fine gael), replying in the *Dail* recently to a speech by the Minister for Health (Mr. Flanagan).

MR. FLANAGAN denied that it had ever been suggested that the proposed changes could have been brought in by now. The White Paper represented a pattern for the future. Each proposed development could come into effect only when the money was there to pay for it. Preparatory work was, however, progressing steadily. As to local opinion on the proposed substitution of a general medical service for the dispensary service sixty-five out of 168 councillors were unequivocally in favour of choice of doctor; fifty had reservations about rural areas; twelve advocated choice within the dispensary system; and forty-one were against, or doubtful about, changing from the dispensary system at all. While it was clear that the majority accepted that there should be a choice, the many reservations about changing the dispensary system indicated genuine unease at how the rural areas might fare.

He remained committed to the principle of introducing a choice of doctor where practicable but was concerned to ensure that rural areas would not be left with a service inferior to that which they had at present.

As to the possibility of arranging for the supply of drugs under the general medical service through retail chemists, the Minister said that discussions with representatives of the retail pharmacists, manufacturers and wholesalers of drugs had shown that a number of matters needed to be clarified. He expected to be able, following discussions with the doctors, to make a decision more or less in step with the decisions taken.

The Minister added that estimated expenditure on medicines for the year showed an increase of £155,000. That, while less than had been recorded in recent times, continued a trend that was engaging the department's attention.

### Time to Speak Up

MR. RYAN said that the Minister had recently assured the medical profession that the Government had no intention of introducing a general medical practitioner service covering much more of the population than was covered at present. It was time the Government Party said in public what it had said to the medical profession.

He complained that no consultations had taken place with the Irish Medical Association; Irish Dental Association or the Irish Nurses' Association, though over a year had elapsed since the White Paper had been published. It was now about ten years since the Department had published an annual report and he hesitated to accept the validity of a ten-year report. In urban areas it was not uncommon for people to queue for a couple of hours to get

a couple of minutes' attention from an overworked dispensary doctor. Even then it was not uncommon in Dublin for people to have to call on a third or fourth day before the item prescribed was available from the dispensary. It appeared from the White Paper and from subsequent lack of Ministerial comment that the Government was proposing to go ahead with this idea of having two stores of drugs and medicines. In the urban areas they would do away with the dispenser in the dispensary service. They would invite chemists to come into a scheme but, in order to do so, chemists would have to keep two stores; one with drugs and medicines for those paying for them, and another for medical card holders. Mr. Ryan forecast that the result would be to impose upon the health authority enormous costs in distributing drugs and medicines through chemists. The health authority would distribute from a central store to the retail outlets while the same drugs and medicines were being distributed to the very same chemists by wholesale chemists and manufacturers in the private sector. The justification put forward by the bureaucrats to that "daft scheme" was that, if the issue were not controlled from the central store, the

whole pharmaceutical profession would run riot and charge outrageous prices. Yet it was quite within official competence to control prices, and it should be apparent that any savings that might be effected through a central depot would be wiped out by redistribution to the various retail outlets.

"The cure is to distribute through the traditional channels, through the private sector, the Government keeping a careful watch to ensure that excessive profits are not made. The cost of distribution would be infinitely less and the service to the public much better."

At present, dispensers were unable to get the proper drugs and medicines rapidly from a central depot, and the private chemist would certainly have to wait much longer. The situation could be foreseen in which a chemist would be able to supply a particular drug from his private store for a patient not holding a blue card but unable to supply the same drug from his public store to the holder of such a card. "I pity the poor chemist if he should take the drug out of his private store and give it to a person on the public health list. He might be lucky enough not to be struck off the list. He would certainly be punished to the extent of never being paid. Let us not have to be faced with this Gilbertian situation."

## SCOTTISH PHARMACEUTICAL FEDERATION

### Work of N.P.U. pharmacy planning unit described

THE first two of the 1967 series of meetings of members of the Scottish Pharmaceutical Federation and National Pharmaceutical Union in Scotland were held in Glasgow, March 15, and in Edinburgh on March 16. Principal speaker at both meetings was Mr. K. E. Long (N.P.U. pharmacy planning executive) and in the chair was Mr. R. Donald (chairman, S.P.F. executive).

Mr. Long, who was accompanied by Mr. R. G. Millar (a director of Shoplan Shopfitters, Ltd.), gave a *résumé* of the work and aims of the Union's pharmacy planning department. Comfortable, bright premises that were pleasant to shop in and provided good service were, he said, fundamental to successful retailing today. The N.P.U. service included, for a nominal fee, making a survey and drawing up a layout plan for the pharmacy.

There followed a showing of the film "Vision in the High Street."

Mr. Long told a questioner that a partial modernisation could be carried out, though naturally it would miss the full benefit. Certainly a gradual modernisation was better than no modernisation at all, but an overall plan should be agreed before the first step was carried out. Seldom did a modernisation fail to result in increased turnover—perhaps 15–20 per cent. in the first year. One pharmacist present said that in his first year after modernisation turnover had increased by 40 per cent. without any large increase in the number of cus-

tomers served. Discussion on the relative areas devoted to selling space, dispensary, storage and staff amenities showed that each pharmacy needed to be considered individually.

### How to Start

To a question on how to start to modernise the answer given was that the best thing to do was to take a long and critical look at the pharmacy as it existed; to try to see it through the eyes of the customer; to make notes on the conclusions drawn; to have a look at other pharmacies and other shops; and then to call in the N.P.U. planning executive. In considering quotations from shopfitters, not only price but the suitability of design and the quality of the fittings had to be taken into account.

At both meetings Mr. R. Donald said the S.P.F. executive had agreed to set up branches in Scotland, and he asked members present to give serious thought to the matter. In both Glasgow and Edinburgh it was agreed to call meetings soon for the purpose, which was thought the best way of keeping the executive council in touch with local members' opinions.

### SOCIETY FOR ANALYTICAL CHEMISTRY

THE following have been elected officers of the Society for Analytical Chemistry for the coming year. — *President*, A. G. Jones; *Vice-presidents*, L. Brealey, B. S. Cooper and W. T. Elwell; *Treasurer*, G. W. C. Milner; *Secretary*, S. A. Price.



## IN PARLIAMENT

A STATEMENT on thrombo-embolic risks involved in the use of oral contraceptives was made by the Minister of Health (Mr. Kenneth Robinson) in the House of Commons on April 4. It was in the following terms:—

A SERIES of investigations has been undertaken by the Committee on Safety of Drugs, the College of General Practitioners and the Medical Research Council in order to examine the possibility that the use of oral contraceptives might be associated with an increased risk of thrombo-embolic conditions. The M.R.C. has recently reported to me that the results of these studies suggest that a woman taking such contraceptives incurs a slightly increased risk of developing thrombo-embolic disorders but that the risk is small and less than that which arises from the ordinary pregnancy and delivery which these contraceptives are intended to prevent. It must, moreover, be realised that all women of child-bearing age are at risk of developing these conditions whether or not they are taking oral contraceptives — as are men of the same age group. The Council inform me that risk of thrombo-embolic conditions arising from the taking of oral contraceptives cannot be precisely quantified at the present time but further data are being collected with this object in mind. The report of the preliminary studies will be published as soon as possible.

The Committee on Safety of Drugs, who considered this information, have advised me that since oral contraceptives possess considerable therapeutic as well as social value they do not feel justified in recommending their withdrawal from the market on the grounds of thrombo-embolic risk, as long as they are available only on medical prescription, and doctors are aware of the slight risk involved. The Committee point out that pharmacological activity and toxicity are inseparable and that on present evidence the risk is specifically less than the risk of thrombo-embolic episodes associated with pregnancy and childbirth. The Committee rely upon continued reporting by all doctors for the further elucidation of this problem.

## LEGAL REPORTS

### New Date for Patents Hearing

THE hearing of a motion in a patent case in which three companies have sued Biorex Laboratories, Ltd., and Mr. Siegfried Gottfried was fixed in the High Court, London, on April 4, to take place on April 21. Plaintiffs are Olin Mathieson Chemical Corporation, E. R. Squibb & Sons, Inc., and Smith Kline & French Laboratories, Ltd. Their action concerns Letters Patent No. 857,547 relating to trifluoperazine or dihydrochloride. Mr. Justice Lloyd-Jacob had earlier fixed a provisional date of April 14 for the hearing of the motion, in which interlocutory relief is sought.

### Raid on Warehouse

FOUR men appeared at North London magistrates' court on March 29 following a raid on a warehouse on the previous night. They were accused of breaking and entering a warehouse

and stealing electric razors and razor blade dispensers valued at approximately £3,000, the property of May Roberts & Co., Ltd., 47 Stamford Hill, London, N.16. The accused were:— Peter Francis Staples, warehouseman, Stoke Newington; Christopher French, Hornchurch, Essex; Leonard Richard Franklin, Thundersley, Essex; and Brian Michael Lane, Hornchurch. Objecting to the granting of bail a police officer said "This was a planned and organised raid on a drugs warehouse containing property worth £40,000." The accused were all remanded in custody.

## COMPANY NEWS

Previous year's figures in parentheses

**GALA COSMETIC GROUP, LTD.**—Group profit for 1966 after all charges but before taxation £372,807 (£333,393); taxation, £159,619 (£122,183). Proposed dividend for year 25 per cent. (22½ per cent.).

**MARTINDALE SAMOORE, LTD.**—Messrs. H. Carter and K. I. Goodley, have been appointed directors as from April 1. Messrs. W. L. H. Chapman, M.P.S., and H. S. Frid have retired.

**J. & E. STURGE, LTD.**—Turnover in 1966 rose to £2,886,600 a 19 per cent. rise (from £2,412,000) and group pre-tax profit to £308,956, (£266,568). Dividend is unchanged at 16 per cent. The directors say Government measures affected trading adversely during the autumn months and profit was less than expected earlier in the year. After tax the net profit is £178,351 (£174,120).

**IMPERIAL CHEMICAL INDUSTRIES, LTD.**—Profits, before tax, in 1967 should be more than in 1966 said Sir Paul Chambers (chairman) at the annual meeting on March 30, much would depend on the Governments' financial policy but 1967 was beginning to show "some promise" although it would be 1968 before "a brighter picture emerges." In the past 10 years the company had spent £778m. on fixed assets.

**NORCROS, LTD.**—Profit of the group of companies, which include, among others, Lantigen (England), Ltd. S. Maw Son & Sons, Ltd. (75 per cent. owned), amounted to £2,131,926 (£1,933,178) for year ended November 30, 1966. Mr. J. Boex (managing director) said on March 30 "That re-organisation now taking place would mean changing into an industrial group with strong central management as distinct from the traditional decentralised management of the holding company.

**R. J. PASCALL & ASSOCIATES and POTTER & CLARKE, LTD.**—Potter & Clarke, Ltd., have recently incorporated a new wholly owned subsidiary, Potter & Clarke (Pharmaceuticals), Ltd., and have transferred to that subsidiary the pharmaceutical manufacturing and marketing business (but excluding the freehold factory, royalty revenue and rare earth business, which will continue). A sale has now been negotiated of the entire issued share capital of the new subsidiary, the purchaser being R. J. Pascall and Associates.

**DISTILLERS CO., LTD.**—The wholly owned subsidiary, Distillers Chemicals and Plastics, Ltd., of which Carshalton division is a part, together with certain other wholly owned subsidiaries, were transferred to British Petroleum Co., Ltd. on March 31 from which date D.C.P.L. changed its name to BP Chemicals (U.K.), Ltd. BP Chemicals, Ltd., a wholly-owned subsidiary of British Petroleum Co., Ltd., has been formed to hold not only those interests transferred from Distillers, but also BP's existing chemicals and plastics interests where they are held directly by BP.

**BERK, LTD.**—Group profits in 1966, before tax, fell to £221,000 (from £988,000). Dividend recommended is 7d. per share (6d.). Sales rose by £2m. to £17.9m., but higher costs and lower selling particularly in the second half reduced profits in all sections. However it is pointed out that the profit drop was largely attributable to a substantially lower contribution from the mercury and mercurial chemicals section and heavy launching costs of Berk Retail. It is not anticipated that the special factors which affected those two sections will recur. Members have been told that a substantial profit recovery is indicated for 1967 with the expectation of a maintained dividend.

**ALBRIGHT AND WILSON, LTD.**—The chairman (Sir Sydney Barratt), in his report accompanying the account for 1966 forecasts some recovery in trading profit during the current year with a further improvement in 1968. But, he added, not until 1969 will the full benefit be felt from the company's major current developments. Reviewing the trading performances of the individual companies in the group during 1966 the chairman says of Bush Boake Allen that overall results were better than the combined results of the three separate companies in 1965. The flavour division (including spices and pharmaceuticals) "did particularly well but the chemical division's sales of plasticisers in the U.K. were affected by current economic restraints during the second half of the year. Potter and Moore substantially reduced the previous year's loss and Wyleys achieved notably higher sales and profits.

**B.D.H. GROUP LTD.**—Mr. D. L. M. Robertson (chairman) addressing shareholders at the company's annual meeting on April 4 said "It was natural that nations should wish to have their own home-based industries, and the manufacture of pharmaceuticals had great appeal to them. As B.D.H. grew the company would be faced with the need to export some capital to maintain their export business. "I see no support for the political argument used by opponents to overseas investment that there are two alternatives: investment in Britain, which helps to improve efficiency, provides more work and immediate payment reliefs at home, versus a delayed return on overseas assets," he added. Local manufacture benefited invisible exports when profits were remitted, was an overseas asset which appreciated in value as the business built up. Mr. Robertson concluded:



"I believe our experience supports the suggestion made by the Confederation of British Industry that if Britain's balance of payments position dictates a curb on investment overseas, the control should be a selective one, and not the present fiscal blanket which suffocates our enterprise abroad." — Dr. V. Petrow has been appointed to a new position of scientific adviser to the group board and has resigned his executive duties as managing director of B.D.H. (Research), Ltd., Dr. R. E. Stuckey has been appointed to that position.

## BUSINESS CHANGES

GEIGY (U.K.), LTD., have appointed Mr. T. W. Parton, manager of the pharmaceutical division of Geigy (Canada), Ltd.

JAMES WILSON (CHEMISTS), LTD., advise a change in the postal address of their premises to 129 Raby Road, Hartlepool (from 129 Hart Road). [Corrected note].

THE principal branch and registered office of G. W. Hales, Ltd., is now at 17 Hamilton Road, Felixstowe, Suffolk, to which address all statements should be sent.

THE business formerly conducted by Remington Electric Shaver, Ltd., is being continued from April 1 under the title Remington electric shaver division, Sperry Rand, Ltd.

KODAK, LTD. — The company's wholesale branch formerly located at Bridgend, Glamorgan, has now moved to Panteg, Pontypool, Mon (telephone: Pontypool 2451).

THE sales management of the following companies in the Sanitas group is now based at Sanitas House, 43 Clapham Road, London, S.W.9 (telephone: 735-2801 and 735-9291):— Aquafilter, Ltd., Elsan, Ltd., Sanitas group sales pharmaceutical division, Sanitas group sales speciality division, Wright Layman & Umney, Ltd.

AT a sales conference of the toiletries division of Smith & Nephew Associated Companies, Ltd., held in London recently, it was announced that a special new sales force structure had been agreed. In future a team of twenty-seven representatives would call on chemists only throughout Great Britain. Under the general sales manager (Mr. R. Lowes) and the chemist sales force manager (Mr. J. Balfour), there would also be three area managers—Messrs. F. Greaves (South-east England); D. Eaton (Midlands West Country) and one yet to be appointed for the North of England and Scotland.

## Appointments

PHARMAX, LTD., Thames Road, Crayford, Dartford, Kent, have appointed Mr. D. Stephenson assistant sales manager.

DENVER LABORATORIES, LTD., 12 Carlisle Road, London, N.W.9, have appointed Mr. G. Ashurst, medical representative in North-west England, Mr. B. Bennett, medical representative in their North-east region and Mr. G. Pavey, representative in South-east England.

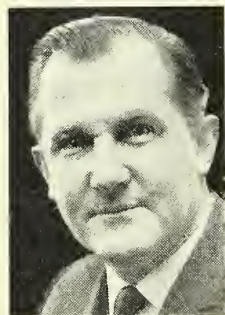
## PERSONALITIES

MR. G. TOPLISS, manager, Boots, Ltd., 42 St. John Street, Ashbourne, Derbys, has been elected vice-president of the town's chamber of trade.

M. JEAN-EMILE COURTOIS, has been elected a member of the French National Academy of Medicine, 6th section (pharmacy). M. Courtois, who was born in Paris in 1907, obtained his doctor's degree in natural science in the University of Paris in 1930 and a further doctorate in physical science in 1938. He has been employed in hospital pharmacy in the Paris region since 1932 and has been president of several learned societies. He is the author of many original papers on aspects of biochemistry. He is a *Chevalier de la Légion d'Honneur*.

MR. A. M. HAMILTON, F.P.S., who has been managing director of Baxter Laboratories, Ltd., Thetford, Norfolk, for the past two years has been appointed managing director of Carson-Paripan, Ltd. (the London-based paint manufacturing company). Mr. Hamilton joined Baxter Laboratories, Ltd. when the British subsidiary of Baxter Laboratories Inc., Illinois, U.S.A., first began operating in Britain in 1959. He was director and general manager until becoming managing director in 1965. He took an honours degree in biochemistry and pharmacy at the University of Glasgow, where he later became a lecturer. He was awarded a Fellowship of the Pharmaceutical Society in 1950.

MR. J. C. MOTTRAM has been appointed to the board of Fisons



Overseas, Ltd., from March 22. Mr. Mottram joined Fisons, Ltd., in July 1965 as an area sales manager in the ethical pharmaceutical department and was appointed departmental manager in July 1966. He was formerly general manager for Sterling International in India and has had wide experience overseas in both the Far East and Africa. Mr. Mottram qualified as a pharmaceutical chemist at Nottingham University.

MR. IVAR McG. BODEN, M.A., has been appointed chairman of E. R.



Squibb and Sons, Ltd.; he remains managing director of the company. Mr. Boden, who is a barrister, joined the company in 1963. He was recently appointed a vice-president of E. R. Squibb & Sons, Inc. and is responsible for operations throughout Northern

Europe and West Africa. He is a member of the board of management of the Association of the British Pharmaceutical Industry. Mr. Boden succeeds Mr. M. Brown jun., who remains on the board.

MR. C. R. B. WILLIAMSON has been elected chairman of the Bayer Products Co., Surbiton, of which he has been managing director since October, 1960. As managing director also of the Winthrop Products Co., he has directed an extensive programme to develop the export markets of Continental Europe. Mr.



Mr. C. R. B. Williamson

L. M. Spalton (chairman, Sterling-Winthrop Group, Ltd.) will remain chairman of the Winthrop Products Co., but Mr. Williamson, as its managing director, will have increased executive responsibility for the development of Winthrop in all countries including the United Kingdom. Mr. Williamson is a member of the board of management of the Association of the British Pharmaceutical Industry. He has travelled over 250,000 miles in the past ten years in Europe and the Americas promoting exports.

## DEATHS

EVELYN.—Recently Mr. Frederick Evelyn, M.P.S., 108 Western Avenue, Market Harborough, Leics, aged seventy-six. Mr. Evelyn qualified in 1914.

GLOVER.—On March 30, Mr. Norman Glover, chairman and joint managing director of Glovers (Chemicals), Ltd., Whitehall Road, Leeds, 12. Mr. Glover died on board ship returning from South Africa.

HOARE. — On March 16, Mr. Bernard Gilbert William Hoare, F.P.S., Pixie Peak, Woolacombe, Devon. Mr. Hoare qualified in 1909.

HORNBOOK.—On March 19, Mr. William John Hornbook, M.P.S., 36 Talbot Drive, Scotstounhill, Glasgow, W.3. Mr. Hornbook qualified in 1937.

MOORE. — On March 17, Mr. Leslie Walter Moore, M.P.S., 97a Milton Road, West Bridgford, Nottingham. Mr. Moore qualified in 1924.

ROBERTS. — On March 16, Mr. Cyril Halcot Roberts, M.P.S., 144 Queens Road, Hastings, Sussex. Mr. Roberts qualified in 1930. He was secretary of the Hastings Branch of the Pharmaceutical Society from 1955 to 1961.

ROSKROW.—On March 25, Mr. Mr. John Selwyn Roskrow, M.P.S., of Molesworth Street, Wadebridge, Cornwall, aged 52. Mr. Roskrow qualified in 1939.

STEWART. — On March 18, Mr. Alistair Carrick Stewart, M.P.S., 25 David Street, Kirkcaldy, Fife. Mr. Stewart qualified in 1920.



## TRADE NOTES

**Hair Advisory Service.**—An advisory service to women, the Nestle Hair Care Advisory Service, has been set up at 3D Grosvenor Street, London, W.1.

**Distribution Change.**—CIBA Agrochemicals, Ltd., 1 Milton Road, Cambridge, are handling the agricultural interests previously undertaken by CIBA Laboratories, Ltd.

**Stocks Exhausted.**—Rona Laboratories, Ltd., Molyneux Street, London, W.1, advise that orders for the product Theviline are no longer being accepted as stocks are exhausted.

**Discontinued.**—Nicholas Laboratories, Ltd., 225 Bath Road, Slough, Bucks., announce that their product Bronchionex is being discontinued. Stock currently held by retail pharmacists should be returned through normal wholesale channels for credit.

**Pine Foam Bath from Finland.**—Avenue Specialities, Ltd., 124 Seymour Place, London, W.1, are distributors of a foaming pine bath fluid from Finland. The product offers, they say, high repeat sales as glowing praise comes from almost every purchaser. The bath is available in bottle and in sachet.

**Now in 10-mil Size Only.**—Bencard branch of Beecham Group, Ltd., Great West Road, Brentford, Middlesex, advise customers that the No. 3 vial of S. D. V. (specific desensitising vaccine) for maintenance treatment of allergic disorders is now available only in the 10-mil size.

**Change of Source.**—Cox-Continental, Ltd., 85 Church Road, Hove, Sussex, have acquired from Duncan, Flockhart & Evans, Ltd., user rights of the trade mark Antoin. From April 10 they become solely responsible for the manufacture and marketing of the tablets. Pack sizes and prices are unchanged.

**No Delay Despite Fire.**—A fire at the Northfleet tissue mill of Bowater-Scott Corporation, Ltd., on the night of April 2 did not cause any immediate disruption in the deliveries of any of the company's retail products. The warehouse was untouched and there are adequate supplies nationally to meet the demand.

**Rights in a Trade Mark.**—J. J. Silber, Ltd., 11 Northburgh Street, London, E.C.1, have become aware that photographic products not of their merchandise are being imported into the United Kingdom under the name Revue, a trade mark registered by Messrs. Silber under number 852522 to denote their products exclusively. Any unauthorised use of the name Revue, they point out, constitutes an infringement of their statutory rights.

**Sales Now Direct.**—Kendall Co. (U.K.), Ltd., 83 Pall Mall, London, S.W.1, took over on April 3 direct responsibility for the sale of their Burson brand elastic hosiery in the United Kingdom. The effect is that all orders are now being dispatched direct from the company's Braunton factory. Orders should be sent either there or through the company's London sales

office (at both locations are staff skilled in the techniques of elastic hosiery). All hosiery in stock sizes is dispatched within twenty-four hours. Messrs. Kendall offer a range of printed aids to simplify the ordering of elastic stockings both for the consumer and for the pharmacist. The complete Burson range is prescribable on EC10 forms and meets all the requirements given for elastic hosiery in the Drug Tariff.

**A New House Mark.**—Bush Boake Allen, Ltd., formed in July 1966 by



the merger of three long-established companies, have adopted the new house mark here illustrated to promote its corporate identity throughout the world. The new symbol will progressively replace all the house marks of W. J. Bush & Co., Ltd., A. Boake Roberts & Co., Ltd., and Stafford Allen & Sons, Ltd. The symbol is also the basis for a corporate design scheme, now being introduced, and will appear on all factories, offices, vehicles, stationery and labels used by Bush Boake Allen, Ltd., and its subsidiary and associated companies throughout the world.

### Bonus Offers

AYRTON, SAUNDERS & CO., LTD., 34 Hanover Street, Liverpool, 1. C.L.P. chlorophen antiseptic. One shilling per doz. less on order for 3 doz.

BAYER PRODUCTS CO., Surbiton, Surrey. Lenium dandruff treatment. Twelve invoiced as ten on any two of

three special parcels. Twelve invoiced as eleven on single parcel.

BRITANOL, LTD., Kersal Vale, Manchester. 7. Hermesetas sweeteners. Fifteen invoiced as twelve on minimum order for 6 doz. Until May 6.

LUMA PRODUCTS, LTD., Marshall House, 468 Purley Way, Croydon, Surrey. Luma anti-rheumatic compound. Bonus pack (twenty four cubes, seven small, two medium and one large packs) at saving of £1 0s. 9d.

PROGRESS SHAVING BRUSH (VULFIX), LTD., Peel Road, Douglas, Isle of Man. Two VSI brushes free with bonus parcel containing four each VS1, VS2 and VS4 and three each VS3 and VS5.

QUALCAST/FLEETWAY, LTD., Charlton Road, London, N.9. Qualcast Zero-matic bathroom scales. Extra 10 per cent.

SOUTHALLS (SALES), LTD., Welwyn Garden City, Herts. Nivea sun-tan products. Thirteen invoiced as twelve.

THAWPIT, LTD., 27 Sunbeam Road, London, N.W.10. Spot Kleeners. 2s. per dozen off trade price. Until May 12.

### Premium Offers

FASSETT & JOHNSON, LTD., Worsley Bridge Road, London, S.E.6. Quickies large-size cleansing pads and suntan oil or lotion pads. Combined pack plus miniature Quickies pack on key ring at normal retail price of the two products.

TAMPAX, LTD., Dunsbury Way, Havant, Hants. Tampax. Handbag container with "discreet" pack of forty. [Self-service display stand available with order for twelve each regular and super, three regular 40's and fifteen super 40's.]

## INFORMATION WANTED

The Editor would appreciate information about:  
Cetalon tablets  
Mayshill powder

## NEW PRODUCTS AND PACKS

### PHARMACEUTICAL SPECIALITIES

**A Preventive Haematinic.**—Abbott Laboratories, Ltd., Queenborough, Kent, have introduced a new speciality Ferrograd-folic in their Ferro-Gradumet family of haematinics. The product is intended for use as a preventive measure against the development of iron- and folate-deficiency states ("and thus frank anaemias") in pregnancy. The makers point out that among important risks to the health and well-being of mother and unborn child inherent in such deficiency states are premature labour, prematurity and consequent higher neonatal death. Each Ferrograd-folic two-layered tablet contains, in the first layer, exciccated equivalent to 525 mgm. of ferrous sulphate, and in the second layer a "physiological" quantity (350  $\mu$  gm.) of folic acid. The pack is a bottle of 100 tablets (100 days' treatment).

**Three New Products.**—Duncan, Flockhart & Evans, Ltd., Birkbeck Street, London, E.2, are launching three new pharmaceutical specialities. Onadon-118 tablets are a combination of soluble aspirin with DF 118 (dihydrocodeine bitartrate) and are indicated in the treatment of a variety of painful conditions especially where anti-inflammatory activity is also required. Each

tablet provides in solution 300 mgm. of (soluble) aspirin and 10 mgm. of dihydrocodeine bitartrate. The tablets are strip-packed in foil in carton of 100. The second product is a new, long-acting local anaesthetic Marcain (bupivacaine) or 1-butyl-2', 6'-pipecoloxylidide hydrochloride. Prepared as a sterile solution in a concentration of 0.5 per cent. with adrenaline 1 in 200,000 for conduction anaesthesia, the product is available in boxes of five and twenty-five 10-mil ampoules. Third of the trio is Extil syrup for use in the treatment of hay fever, especially when the symptoms are not adequately relieved by antihistamines alone or where there is associated bronchospasm. Each 10-mil dose (two teaspoonfuls) contains 6 mgm. of carbinoxamine maleate and 60 mgm. of pseudoephedrine hydrochloride. The anti-allergic properties of carbinoxamine are associated with the vasoconstrictor properties of pseudoephedrine in the aim of eliminating the need for tropical therapy with nasal drops or sprays. Pack is a bottle of 5 fl. oz.

### OVER-THE-COUNTER MEDICINALS

**Mouth Ulcer Pastille.**—Clay & Abraham (Mnfg.), Ltd., have introduced a pastille, Ulcanon Gelets, as an adjunct to their speciality Ulcanon.



They are issued in a green-and-white plastic tube in counter outers. [Corrected note.]

**An Ointment in the Series.**—Keldon, Ltd., Wadsworth Road, Perivale, Middlesex, are marketing a new product



in the Optrex range: Optrex eye ointment containing in a buffered solution, finely dispersed in an emollient base, gramicidin antibiotic and aminaerine hydrochloride antiseptic. Pack is a PVC tube (no risk of metal particles).

#### FOODS

**New Luxuries for Slimmers.**—Three "certain new winners" in the Simbix range of low-calorie diet biscuits and nibbles are announced by Britanol, Ltd., Kersal Vale, Manchester. Of the three, the one that is expected to be most popular for slimmers with a sweet tooth is the milk chocolate cream. It is a shortbread biscuit topped with a vanilla cream and coated in milk



chocolate. The pack contains twelve — enough for three replacement meals, providing only 340 calories and vitamins, minerals and protein to keep a slimmer fit and healthy. For those who normally take sandwiches to the office the popular choice is likely to be the new cheese and apple flavour cracker sandwich biscuit, with the tangy flavour of English cheese plus the sharp bite of apple — always a popular combination. Four Simbix cheese and apple crackers provide 300 calories for one replacement meal. A completely new type of pack — tall and narrow — contains the latest in the Simbix "nibbles" range — cheese-flavoured "mini" crackers. They provide an excellent "satisfying snack for slimmers" (particularly for elevenses and supper snacks) and offer a first-class biscuit for teenage parties (with dips, cheese, hot soup and for canapes). Housewives will like them for coffee mornings and children will love to dip into the box

all day long. Each "mini" cracker represents only ten calories. The slimming leaflet contained in each pack carries the news that Simbix is approved for British United Airways hostesses. The makers are also launching on April 10 the first ever fashion service for slimmers. A leaflet in the packs features photographic model Maggie London wearing a range of "swinging," young dresses. A paper pattern based on those originals by the London fashion house of Marlborough is being offered at low cost to purchasers of any Simbix variety.

#### COSMETICS AND TOILETRIES

**Hair-setting Kit.**—Newey Goodman, Ltd., Robin Hood Lane, Hall Green, Birmingham, 28, have launched a new hair kit, Wiz Set. They describe it as "heat setting—plus." Its "secret" is an outer casing of polypropylene containing an element that melts when curlers are immersed in boiling water. The curlers dry the hair almost instantly as the curler continues to give out heat. Contents of the pack are eight curlers.

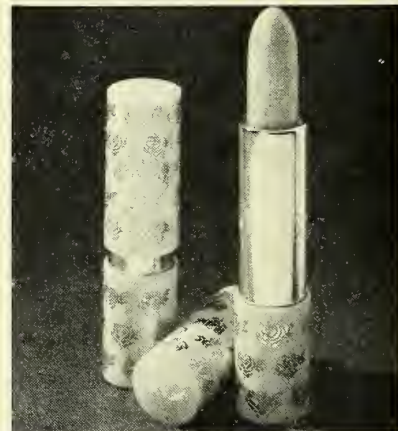
**Rejuvenating Treatment Kit.** — Natura Products, Ltd., 84 Camden Road, N.W.1, are the sole importers and distributors in the United Kingdom of a new French rejuvenating treatment that is understood to have proved highly successful all over the Continent of Europe. In the pack are three products. *Savon Cytanines* soap is composed of fatty components and selected proteins. Its features are a velvety softness and moisturising creamy lather making it "the supreme soap to deep-cleanse and prepare the skin prior to treatment and normal make-up." *Placental* ampoules, the second product, is described as "the shock treatment for your skin," presenting the "living cell" in a liquid suspension and claimed to deal quickly with aene and wrinkles. *Crème de Vie*, third member of the trio, is "the most powerful rejuvenator known to modern science." Routine is to wash thoroughly using *Savon Cytanines*, rinse with warm water and dry gently; next to shake one ampoule of *Placental* and empty the contents into a porcelain saucer, apply to the skin and leave on all night. Next morning the skin is again washed thoroughly using *Savon Cytanines* and *Crème de Vie* applied fifteen minutes before make-up. The "shock treatment" is repeated for ten consecutive days.

**Nail-shine Kit.**—Latest addition to the range of cosmetics marketed by Mary Quant Cosmetics, Ltd., London, S.W.3, is Nailshine, which is presented in kit consisting of a buffer (with washable, detachable cloth and spare cloth),



nail cream and white nail pencil. In use a little cream is put on to the nail, massaged into the base and the nail then buffed lightly from side to side until the shine appears. The moistened tip of the pencil applied under the nail tip leaves them a healthy white. The product is described as a "must" for girls who do not wish to use nail polish, or nail make-up, or for those who want to restore their nails to good health and have them looking good at the same time. The kits are sold in a counter display unit of four.

**New Lip and Nail Colours.**—Gala of London, Ltd. (distributors Myram Picker, Ltd., Hook Rise, Kingston By-pass, Surbiton, Surrey) are introducing



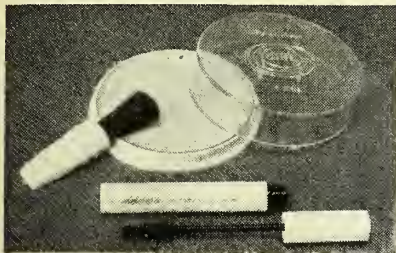
four new lip and matching nail colours in lipstick, Lipline, Big Gem and Little Gem. The colours are Cool, Burning, Sheer, and Desert "shimmers." They are designed, it is stated, with continuing lipstick colour trends in mind (that is the trend towards pale browns and pinks). There appears to be, state the





manufacturers, no current demand for brighter colours nor for red/orange tones. Burning shimmer No. 72 was included to fill a particular gap in the Gala range, and all four lipsticks are described as being of a much lighter texture than previously but "still as soft as consumers want." The pack is a new rose case, light beige in colour, with more small gold roses stamped upon it.

**Mascara and Brush-on Finish.**—Girl Cosmetics, Ltd., Surbiton, Surrey, have launched two new products. Brush Curl-on, in two shades of black and brown, is a new mascara in the Outdoor Girl range. It is described as an automatic brush mascara without fibres. The white and gold case with tapered brush is not refillable. "Brush-on



finish," the second product, is in natural and frosted shades and is designed to give a final finish to make-up without adding colour. The effect is matte but light, and is achieved by the use of the brush. The product is used over a tinted foundation instead of cream powder or loose face powder. It could be used over untinted foundation if a completely colourless make-up were desired. "Brush-on finish" described as "compressed but very light and non-greasy," is claimed to "fluff on" easily with the brush and to blend with the colour of the tinted foundation that has been used. The pack is a transparent container with brush fitted inside the lid; it is taped on to a card.

**"Pearlescent" Make-up.**—Harriet Hubbard Ayer (Molyneux et Cie (Designs and Perfumes), Ltd., 63 Grosvenor Street, London, W.1) have produced a new make-up, "Pearlescent," that is claimed to give the face "the radiance and delicate colours of a spring morning." Pearling (a lucent fluid cream it contains), "makes the face look all rosy lights and satin lustre." Pearling may be blended with the foundation in the palm of the hand, smoothed over the face to give it an even pearly iridescence, or applied over foundation on areas of the face that call for emphasis (cheekbones, forehead, contours, etc.). It may also be smoothed over lipstick to brighten the lips, or spread over the eyelids to impart brilliance. Another new Harriet Hubbard Ayer product is "Satin shadows," described as luminous, satin like powders for the eyelids with a delicate sheen-like *moiré*. The colours are stated to break away from the current bland no-colour eye make-up into a clear pure turquoise, jade, blue, mauve and brown for today's use, and in three special silky and iridescent evening colours (gold, platine and pearl). A new lip colour from Harriet Hubbard Ayer is "pastel orange."

## A BUYING GROUP'S GOLDEN JUBILEE

### Anniversary celebrations at Bradford

RECENTLY the Bradford Chemists Alliance, Ltd., entertained 200 local pharmacists and guests at a cocktail party and buffet at Bingley to mark the golden jubilee of the company. The guests were welcomed by Mr. W. Wright Hudson (chairman), and Mr. Basil C. Thorpe (past chairman and son of a founder director) spoke about the progress made in the past fifty years and paid tribute to the dedicated service of Mr. Ernest Hazlehurst (secretary) and Mr. Tom Beavers, (manager).

### Foresight Rewarded

The foresight shown by four leading Bradford chemists in 1917, he said, had resulted in a wholesale service now available to about 100 chemists within a radius of twenty miles of the city. The Bradford Chemists' Alliance, Ltd., had been founded in 1917 with a capital of £500 in £10 shares, the original directors being Messrs. A. Faull, Westgate, Marmaduke Firth, Manningham, D. S. Preastly, Whetley Hill, and J. M. Thorpe, Bradford Moor — all now dead. Operations had started with a staff of one (the manager Mr. Shepherd) and a single-room warehouse in Lumb Lane, from which chemists had to collect their own goods. There had been inevitable setbacks, but eventually new premises had been found in Union Street, only to be destroyed by a disastrous fire during the early stages of the 1939-45 war. Everything then went — even the records, and a new start had to be made from a warehouse in nearby East Brae. A change in pattern of trade following the coming into

force of the National Health Service Act, 1946, and the continued success of the Alliance, had prompted a further move to Scoresby Street, from which address there had been yet another move in 1963 to much larger premises at 108 Thornton Road. For the first time the Alliance had become landlords of their own property, and had introduced the most up-to-date handling techniques incorporating roller conveyers and two lifts, one at each end of the large building.

### Latest Extension

Some of the shareholders, of whom there are fifty, had considered the premises too large, but within two years the secretary (Mr. Hazlehurst) had been on the look-out for additional space. Luckily it had been possible to extend to the rear of the existing premises, knocking doorways through the connecting walls.

### Facts and Figures

The company now uses more than 70,000 sq. ft. of floor space and the manager (Mr. Tom Beavers) has a staff of thirty-two. When he started with the company forty-seven years ago, about 400 items were in stock. Now around 15,000 items are available and three vans provide a twice-daily service. The current annual turnover is £½ million. The Alliance is owned by local pharmacies and five directors are in charge of policy. The chairman (Mr. W. Wright Hudson, Wibsey) and Messrs. W. H. Carter, Tong Street, Dudley Hill; Arnold Davy, Idle; Dennis Bland, Halifax; and E. Hazelhurst.

## MANUFACTURING CAPACITY DOUBLED

### A removal from Horsham to Langley

A NEW factory at Langley, Bucks, built for Clairol, Ltd., 66 Baker Street, London, W.1, provides double the production capacity of the company's previous factory at Horsham, Sussex. At an opening ceremony during February, Mr. D. Campbell (managing director) claimed for Clairol, after only eighteen months in full retail distribution, "number three position" in the hair colourants market. The factory, he said, represented a capital investment of more than £¼ million. The four-acre

site is not yet in full use, but plans have already been drawn up for new warehousing and finished goods storage areas. The factory employs over 100 people, including office staff. The production floor is equipped to fill and cap bottles at an average rate of 100 a minute. While most of the raw materials are obtained locally, internationally uniform quality is maintained by supplying the specially formulated dyestuffs from the Clairol research laboratories in Stamford, Connecticut.

Tests are carried out both at Langley and at the Stamford laboratories.



**MAYORAL INSPECTION:** Following the opening ceremony at the new factory of Clairol, Ltd., at Langley, Bucks, a few weeks ago, the mayor of Slough (Councillor C. A. Penn) went on a tour of inspection with the company's managing director (Mr. D. Campbell). They are here seen in the packing department.







April 8, 1967

# cumulative price changes

AMENDING C & D  
QUARTERLY PRICE LIST  
FOR MARCH 1967

<b>Acecoline (49 AF)</b>									
ampoules 0.1 gm 8	64	0	—	7	2				
<b>Actal (97 Bayer)</b>									
tablets	48	44	0	—	5	6			
	250	15	0ea	—	22	6			
	1000	47	8ea	—	71	6			
<b>Acthar (61 APC) ts4B</b>									
intravenous 45iu	84	0	—						
<b>Adcortyl-A (1176 Squibb)</b>									
intramuscular (vet.) 100gm & 1gm									
<b>Adcortyl-A (1176 Squibb)</b>									
ophthalmic ointment with graneodin									
<b>Ad-Pilo (930 P &amp; B) ts1</b>									
ophthalmic solution									
1% 10mils	5	6ea	—	8	3				
2% 10mils	6	3ea	—	9	5				
4% 10mils	7	9ea	—	11	8				
<b>Albamycin GU (1263 Upjohn) ts4B</b>									
tablets	30	32	2ea	—					
	100	104	6ea	—					
<b>Alevaire (97 Bayer)</b>									
solution 500mils	13	3ea	—						
<b>Amin-Ex (760 Liga) existing entry</b>									
<b>Amin-Ex (760 Liga)</b>									
low protein biscuits	5oz	20	0	—	2	3			
<b>Anapax (1053 Rexall)</b>									
cold tablets delete †									
cough pastilles insert †									
nasal spray delete †									
<b>Andre Philippe (48 AP)</b>									
bubble bath									
dimple	2	13	0	3	7	1	11		
Cologne/lavender									
10oz	24	19	6	5	4	2	11		
shampoo liquid									
bottle	16	19	6	5	4	2	11		
<b>Antibacsyn (52 Antibody)</b>									
<b>Antiphlogistine (369 DL)</b>									
rub	2oz	30	10	8	6	4	7		
<b>Antisol (11 Aerosmoke)</b>									
(distributors 1518 Tillner)									
<b>A.P.L. 37 (52 Antibody)</b>									
<b>Appetrol (1441 Wallace) ts4B</b>									
tablets	100	19	1ea	—	28	8			
	50	—	—						
<b>Astral (333 Cupal) existing entry</b>									
<b>Astral (333 Cupal)</b>									
air fresheners									
bouquet blocks	11	1	—	1	3				
cedar blocks	22	0	—	2	6				
junior blocks	6	11	—	9					
rainbow blocks	18	10	—	2	0				
air freshener aerosols									
Apple Blossom									
super size	37	4	—	3	11				
Caribbean Night									
popular size	32	5	—	3	3				
Magnolia Blossom									
household size	29	2	—	2	11				
super size	37	4	—	3	11				
Rose Petal									
household size	29	2	—	2	11				
super size	37	4	—	3	11				
Touch of Spring									
super size	37	4	—	3	11				
bubble pack blocks									
apple blossom,									
carnation, lavender									
moth repellent,									
magnolia blossom,									
rose petal, toilet	13	10	—	1	6				
car air freshener	16	0	—	1	9				
<b>Atkinson (76 Atkinson)</b>									
<b>English lavender</b>									
2oz	71	3	19	1	10	6			
4oz	132	4	35	6	19	6			
7oz	203	6	54	7	30	0			
14oz	390	0	104	7	57	6			
28oz	746	0	200	0	110	0			
<b>Avrogl (1281 Vincent)</b>									
(distributors 1054 R & A)									
gel									
tube 31	4	8	7	4	6				
<b>Acte-Phages (49 AF)</b>									
ampoules									
coli-phage 5mils	143	0	—	15	11				
intesti-phage									
5mils	143	0	39	4	19	3			
rhino-phage 4mils	143	0	39	4	19	3			

D	Baghari (Piguet (1253 Turnpenny) existing entry)									
	Baghari (Piguet (1446 Pearmoss))									
	perfume	1oz	12	9ea	3	7ea	22	10		
		1oz	30	3ea	8	5ea	54	0		
		1oz	43	2ea	11	11ea	76	6		
		1oz	61	11ea	17	1ea	110	0		
		2oz	104	2ea	28	8ea	184	6		
		4oz	190	9ea	50	0ea	336	0		
	toilet water	2oz	18	6ea	5	0ea	32	0		
		4oz	28	0ea	7	9ea	49	0		
		8oz	44	0ea	11	7ea	79	0		
		16oz	72	6ea	20	1ea	129	0		
		32oz	106	0ea	29	2ea	188	0		
D	Band-Aid (672 Johnson) existing entry									
I	Band-Aid (672 Johnson)									
	elastic plasters									
	wallets		8	6	—	—	1	0		
	medium assorted	21	3	—	—	—	2	6		
	1 1/2 in x 1 yd strip	21	3	—	—	—	2	6		
	2 1/2 in x 1 yd strip	29	6	—	—	—	3	6		
	2 1/2 in x 6 in strip	4	3	—	—	—	—	—		
	sheer plasters	21	3	—	—	—	2	6		
	washproof plasters									
	wallets		8	6	—	—	1	0		
	small assorted									
	carton	12	9	—	—	—	1	6		
	medium assorted									
	tin	21	3	—	—	—	2	6		
	large assorted	tin	29	9	—	—	3	6		
	medium strips	tin	21	3	—	—	2	6		
	large strips	tin	29	9	—	—	3	6		
	3 in x 1 in	100	91	0	—	—	11	4 1/2		
	3 in x 1 in	100	112	0	—	—	14	0		
	1 1/2 in dia.	100	78	0	—	—	9	9		
	1 1/2 in x 1 1/2 in	100	106	0	—	—	13	3		
	2 in x 4 1/2 in	5	21	3	—	—	2	6		
		50	224	0	—	—	28	0		
	butterfly closure									
		100	72	0	—	—	9	0		
D	Bandit (Piguet (1253 Turnpenny) existing entry)									
I	Bandit (Piguet (1446 Pearmoss))									
	perfume	1oz	15	0ea	4	2ea	26	8		
		1oz	34	4ea	9	5ea	61	0		
		1oz	57	9ea	15	8ea	102	6		
		1oz	88	0ea	24	1ea	174	0		
		2oz	151	9ea	41	10ea	269	6		
		4oz	267	0ea	73	5ea	474	0		
	toilet water	2oz	18	6ea	5	0ea	32	0		
		4oz	28	0ea	7	9ea	49	0		
		8oz	44	0ea	11	7ea	79	0		
		16oz	72	6ea	20	1ea	129	0		
		32oz	106	0ea	29	2ea	188	0		
D	Barquinol (1530 Fisons)									
	Belmag (713 KH)									
	ideal quartz lamp									
		511.136	442	6ea	—	—	590	0		
	Benoxyl (1191 Stiefel)									
	lotion plain	30mls	60	0	16	6	8	11		
	regular	30mls	62	0	17	0	9	2		
	strong	30mls	66	0	18	2	9	9		
D	Betnesol (518 Glaxo)									
	tablets 0.5mgm	500								
D	Bois d'Amour (286 Colomb)									
D	Bonny Bouncer (436 Evans)									
	see under Cindico									
	Bounce (481 F & S)									
	hair set	tube	35	2	9	8	5	6		
D	Bourn-Vita (216 Cadbury) existing entry									
	Bourn-Vita (216 Cadbury)									
		1/2 lb	15	10 1/2	—	—	1	8		
		1/2 lb	28	6	—	—	3	0		
		1 lb	54	8	—	—	5	9		
D	British bee venom (52 Antibody) all packs									
D	British grass pollen (52 Antibody)									
	Bromodyne (745 Legat)									
D	Brovon (859 Moore)									
	pressurized									
	complete		108	0	—	—	13	0		
	refill		—	—	—	—	—	—		
D	Cadbury (216 (Cadbury))									
	diabetic chocolate									
	plain	1/2 lb.	18	0	2	8 1/2	1	11		
	almond	1/2 lb.	21	10	3	3	2	4		
	assorted		—	—	—	—	—	—		
D	Cadum (280 CP) 5 pack minimum order									
	soap continental									
	toilet		18	10	5	2	1	2		
			(2doz)		(2doz)					
	bath		29	7	8	1	1	10		



[illegible]



[illegible]



syrup 125mgm/5mls 60mils 9 8ea — 14 6				D Ruby (1418 Strenol) tapeworm remedy (vet.)				Trihexin (409 EH) capsules 80 148 0 —			
forte 60mils 18 0ea — 27 0				D Rybar (1091 Rybar) † Rybar co. tablets 25 48 0 13 2 7 1				Trimetts (1552 UL) milk chocolate meal 22 0 3 8			
tablets 125mgm 20 13 6ea — 20 3				100 14 0ea 3 10ea 24 10				trebles 20 0 3 4			
Penbritin K.S. (1393 8RL) †s48 powder for suspension 60mils 8 9ea — 13 1½				Scarfe (588 H&H) herbal cigarettes 20 21 6 — 2 6				Trimster (1542 Trimster) baby shampoo 18 10 5 2			
Persomina (67 Ashe) tablets 12 18 0 — 2 3				Schick (1054 R & A) razor kit Y100 44 0 12 1 6 6				Trinitrine Cafeine (49 AF) †s7 pills 60 45 0 12 4½			
Personna (438 ER) razor "Lady Personna" 50 8 14 0 7 6				D Secto (333 Cupal) existing entry Secto (333 Cupal) aerosols				Trinitrine Papaverine (49 AF) †s1 pills 60 73 0 20 1			
Philishave (977 PE) shaver Traveller cordless 72 1ea 19 5ea 115 6				ant killer household size 41 0 — 4 3				Triptafen-DA (34 A&H) †s48 suspension 5oz 7 6ea —			
Phospho-soda (49AF) 6oz 65 0 17 10½ 8 9				biting insect repellent popular size 44 3 11 0 5 6				forte suspension 500mils 25 0ea —			
I Photopia (980 Photopia) binoculars 7x35 — — 229 9				floral fly killer super size 37 4 — 3 11				500mils 28 11ea —			
7x50 — — 273 10				household size 32 5 — 3 3				Tubifoam (1127 Seton) (distributors 93 BJ) single tubes			
8x30 — — 218 9				mothproof household size 41 0 — 4 3				2032, 2033 1 2ea —			
8x40 — — 240 9				superfast fly killer super size 41 0 — 4 3				2034, 2035 1 6ea —			
10x50 — — 277 10				giant size 75 0 — 7 6				2036 1 10ea —			
12x50 — — 288 4				wasp killer household size 41 0 — 4 3				Ucal (1261 Ucal) blood purifier 16oz 32 0 8 9½			
16x50 — — 299 7				liquids Biosect plant food 13 10 — 1 6				bronchial catarrh syrup† 4oz 19 0 5 3			
20x50 — — 310 7				D.D.T. 8oz 23 6 — 2 6				8oz 28 0 7 8½			
7x35w/a — — 343 4				16oz 35 10 — 3 11				2oz 19 0 5 3			
8x40w/a — — 378 7				32oz 57 6 — 6 3				chillie paste 100gm 15 0 4 1½			
Physeptone (208 8V) †s1DD injection 10mgm/ml 5 2 6ea — 3 9				(American) 128oz 155 0 17 6				nursery powder 1oz 14 6 —			
D PIB (859 Moore) pressurised inhalant 108 0 — 13 0				hair emulsion 16 0 4 0 2 3				baby cream 4oz — —			
D PIB Plus (859 Moore)† pressurised inhalant pressurised inhalant 134 0 — 16 0				insecticide powder plastic puffer 4oz 17 6 — 1 11				D borated zinc and starch nursery powder			
D Pinoletta (1030 Ravika) bubble bath 1 lb 60 0 17 0 9 6				cattle louse powder 1 lb 35 0 — 3 11				Ulcane (267 C & A) Gelets 17 0 4 8			
Plus (1565 P. Plus) cubeflash — — 24 10				D Secto-Kil (333 Cupal) slug tablets 150				Urapseptine (49 AF) granules 80gm 67 0 18 5			
Polycrol (894 Nicholas) gel 12oz 89 0 22 7 13 1				D Sequestrene (871 MCC) size 3 21 8ea — 32 6				D Valopto (343 DH) Vanvac (436 Evans) Vapona (115 S & N) insect killer strip 9 6ea —			
Ponoxylan (1320 WSP) derm 45gm 66 0 18 0 9 9				D Si-Ko (1101 Sangers) mouth spray aerosol 55 9 15 4 7 11				D moth killer strip 3 7½ea —			
Possession (Corday (813 MF)) talcum 100 0 23 9 14 8				D Silver-Tex (1203 Surex) existing entry Silver-Tex (1203 Surex) protectives 60 0 — 2 6				Vasutonex (218 Calmic) 30gm 30 0 8 3			
D Pretty Feet (1164 55L) Pretty Feet (1113 58 & 8) Provera (1263 Upjohn) †s4B tablets 100mgm 100 282 4ea — —				D Simbix (173 Britanol) nibbles puff crackers 26 3 — 2 11				D Vasocidin (451 F&J) Vasocidin (930 P&B) Vasocidin-D (451 F&J) Vasocidin-D (930 P&B) Vasodex (451 F&J) Vasodex (930 P&B) Vasocon-A (930 P & B) †s7 ophthalmic solution 15mils 6 6ea —			
Quickies (451 F&J) skin cream 12 11 3 7½ 1 11				D Slimfoods (1530 Fisons) Slimway (442 Exello) (distributors 261 Christy) slimming tablets 55 0 — 6 9				D Vasopred (451 F&J) Vasopred (930 P & B) TS ophthalmic solution 10mils 6 6 ea —			
Quinasp (1457 PP Ldt) † capsules 12 30 0 8 3 4 6				D Small Change (1127 Seton) SMP (451 F&J) SMP (930 P&B) Sofra-Tulle (1087 Roussel) TS dressings 4x4in 10 56 0 — 7 0				D Vasosulph (451 F&J) Vasosulph (930 P & B) Vasozinc (451 F&J) Vasozinc (930 P&B) Vatenol (583 HP) tablets 10mgm 100 25 0ea —			
D Rantu (67 Ashe) Rauwiloid + Veriloid (1061 Riker) †s4B tablets 100 36 8ea — 263 0				D Soma (1532 Care) aerosol spray Sonki II (713 KH) existing entry Sonki II (713 KH) health lamp with timer 147 0ea — 210 0				D Vax (191 BVF) vacuum jug Standard G69 Grecian J70 refill R231 Seal-a-Vac stoppers VA131/125			
D Regent (604 HMC) existing entry Regent (604 HMC) binoculars 8x30 — — 120 0				D Sombra (1532 Care) aerosol spray Sonki II (713 KH) existing entry Sonki II (713 KH) health lamp with timer 161 8ea — 231 0				D Vichy-Celestins (653 I&R) splits 34 6 (2doz) 5 8			
case 8x40 — — 138 0				D Spray Tan (47 Anestan) original lanolin or extra soft 66 4 18 3 9 9				half bottles 49 6 (2doz) 8 2			
case 7x50 — — 150 0				D Strike (818 M&B) rooting powder 30 0 — 3 9				bottles 35 3 5 10			
case 10x50 — — 157 6				D Suka Hati (286 Colomb) Summer Blonde (265 Clairol) hair lightener 53 0 15 2 8 6				Vichy Grande-Grille (653 I&R) bottles 35 3 5 10			
case 12x50 — — 162 0				D Sympathie (286 Colomb) Tabloid (208 8W) three bromides 12				Vichy Hopital (653 I&R) bottles 35 3 5 10			
case 16x50 — — 168 0				D T.C.P. (1552 UL) pet antiseptic 16 9 4 7 2 3				D Visa (Piguet (1253 Turnpenny) existing entry) Visa (Piguet (1446 Pearmoss)) perfume 4oz 12 9ea 3 7ea			
Regula (980 Photopia) flash unit variant F5 — — 356 9				D Teeda (1219 Teeda) cream hair straightener 9 2ea 2 6ea 17 6				4oz 30 3ea 8 5ea			
Remotic (1176 Squibb) TS ear drop capsules 15 7 6ea — 11 3				D Telepaque (97 Bayer) tablets 36 24 11ea — —				4oz 43 2ea 11 11ea			
Revlon (1052 Revlon) aquamarine eau de toilette spray mist 0188 115 3 31 8 17 6				D Tephamine (1091 Rybar) mixture 4oz 45 0 12 5 6 8				1oz 61 11ea 17 1ea			
silk of aquamarine 3680 138 3 38 0 21 0				D Thiaiver (1061 Riker) †s4B tablets 100 38 0ea — 57 0				2oz 104 2ea 28 8ea			
lip blushers 0319 62 6 17 2 9 6				D Thibenzole (837 MSD) autodrencher with priming cartridge 132 9ea — 177 0				4oz 190 9ea 50 0ea			
Right Guard (514 Gillette) deodorant aerosol 2½oz 41 3 11 4 5 9				D Thionaiodine-V (49AF) tablets 40 62 0 17 1 8 5				8oz 44 0ea 11 7ea			
Roccal (97 Bayer) antiseptic 6oz 20 9 — 2 7				D Thyropit (830 Medo) 500 pack				16oz 72 6ea 20 1ea			
D Rosemary (588 H&H) existing entry Rosemary (588 H&H) shampoo sachet 5 3 1 5 9				D Toniron (830 Medo) 500 pack				32oz 106 0 ea 29 2ea			
bottle 2oz 16 6 4 6 2 6½				D Tonivitan (830 Medo) capsules 500				Vitalvel A (1285 Vitamins) capsules 25			
6oz 46 10 13 0 7 1				D Toujours Moi (Corday (813 MF)) talcum 100 0 23 9 14 8				Vittel Grande (653 I&R) half bottles 49 6 (2doz) 8 2			
16oz 99 5 28 0 15 2				D Trasyol (452FBA) ampoules 100,000 k.i.u. 10mils 5 567 0ea — 850 6				bottles 35 3 (2doz) 5 10			
D Roter (444 FAIR) tablets 40 58 0 16 0 8 2								Vittel Hepar (653 I&R) bottles 35 3 5 10			
dp 360 41 0ea — —								D Warmabed (1308 Warmabed) existing entry Warmabed (1308 Warmabed) De Luxe electric blankets			
dp 720 77 0ea — —								single 60x30 — —			
Royal Sweden (1412 Jackel) hair brush ladies 501 372 0 102 3½ 55 6								double 60x48 — —			
D bath brush 12285 — — 118 9½ 64 6								dual control 60x48 — —			
								three heat single 60x30 — —			



double 60x48	—	—	239	7
ve step control	—	—	63	0
unit	—	—	77	6
table lamp model	—	—	—	—
sol (896 NL)	—	—	—	—
r drops 16mils	42	0	—	5 3
come (208 BVV)	—	—	—	—
men diluent (vet.)	—	—	—	—
lor (1070 Windsor)	—	—	—	—
ch crystals 1222	—	—	—	—
ap luxury 1202	—	—	—	—
lam (615 H & M)	48	0	13	3
an (13 AEG)	—	—	—	7 1½
hath lamps	—	—	—	—
Theratherm	—	—	—	—
Ultravitalux GUR53	—	—	33	6
ec (672 Johnson)	—	—	98	6
uze swabs	—	—	—	—
x 2in	100	33	0	—
x 3in	100	57	9	—
x 4in	100	101	0	—

**Zymafluor (1493 Zyma)**  
tablets 150 24 0 7 0 3 7

## AMENDMENTS TO KEY TO SUPPLIERS

- 13 AEG=AEG (Great Britain), Ltd., 27 Chancery Lane, London, W.C.2. 01-242-9944.  
152 Bovril=Bovril, Ltd., Southbury Road, Enfield, Middlesex.  
160 Bliss=Bradley & Bliss, Ltd., Kings Road, Reading, Reading 40303.  
264 Cindico=Cindico Products, Ltd., Albion Street, Driffield, Yorks. Driffield 3434.  
576 PH=Philip Harris Medical, Ltd., Hazelwell Lane, Sturichley, Birmingham, 30. 021-458-2020.  
671 Jeyes=Jeyes-Parazone Sales, Ltd., River Road Barking, Essex. Rippleway 1131.

- 794 MHC=Mansell Hunt Catty & Co., Ltd., Cressy Road, London, N.W.3. Gulliver 3484.  
1105 Sarakan=Sarakan Products, Ltd., 43 Sunningdale Avenue, Leigh-on-Sea, Essex. Southend 74719  
1227 THP=Three Hands Products, Ltd., River Road Barking, Essex. Rippleway 1131.  
1234 TCP=Tidebrook Chemical Products, Ltd., P.O. Box 413, 19 Grange Road, London, S.E.1. Bermondsey 4525.  
1347 WB=Wood, Bastow (Elastics), Ltd., Victoria Road, Pinxton, Notts. Pinxton 508.  
1378 CD=C. D. Indicators, 31 Queen Anne's Gate, London, S.W.1. Whitehall 9711.  
1446 Pearmoss=Pearmoss, Ltd., 81 George Street, London, W.1. 01-935-6440.  
1546 Sheranel=Sheranel, Ltd., Rodley, Leeds, Yorks. Pudsey 76683.

## THIS WEEK'S CHANGES

Prices are given in the sequence Trade Price per Doz., Purchase Tax per Doz., Retail Price. Bold upright figures (2 9) in the retail price column indicate that the price is subject to resale price maintenance; italic figures (2 9) that it is recommended by the manufacturers; and light upright figures (2 9) that it is "notional" as a guide to the retailer in determining his own retail price.

yl (61 APC)	—	—	—	—
jection vial	—	—	—	—
mycin (972 Pharmax) TS	—	—	—	—
jection	—	—	—	—
00,000 units 10	60	9ea	—	81 0
0,000,000 units 10	86	10ea	—	115 10
blets	—	—	—	—
50,000 units 100	79	5ea	—	105 11
5,000,000 units 50	233	0ea	—	310 8
r-Match (525 Golden)	—	—	—	—
try line	46	2	12	8
elan (518 Glaxo)	—	—	—	6 10
blets 5mgm 50	—	—	—	—
rtelan (518 Glaxo)	—	—	—	—
eam 1% 5gm & 200gm	—	—	—	—
ntment 1% 5gm & 200gm	—	—	—	—
o (972 Pharmax) †	—	—	—	—
nic 8oz 33	0	9	6	4 11
80oz 22	8ea	—	—	30 3
oweb (115 S & N)	—	—	—	—
retched 3x6/7yd	—	—	—	—
3603	110	0	—	12 10
egen (421 Energen)	—	—	—	—
on-sugar sweetener 27	2½	—	—	2 9
ograd-Folic (2 Abbott)	—	—	—	—
tablets 100	25	0ea	—	37 6
(876 MP)	—	—	—	—
elvet finisher	44	0	12	1
highlighter	44	0	12	1
shapers 52	5	14	5	7 9
amsustac (972 Pharmax) †s4B	—	—	—	5 6
blets 7½mgm 30	4	1½ea	—	41 4
250	30	0ea	—	6 6
15mgm 30	4	10½ea	—	49 4
250	37	0ea	—	—
M—A (179 BDH)	—	—	—	—
owder 75gm	48	0	—	6 0
lox-118 (394 DF) †sIDDI	—	—	—	—
blets 100	11	8ea	—	17 6
calcium (518 Glaxo) tablets	—	—	—	—
macetyl (417 EPL)	100	106	0	29 0
	—	—	—	14 3

R Peptacol 10 (972 Pharmax) †s4B	—	—	—	—
tablets 20	4	9ea	—	6 4
200	40	0ea	—	53 4
R Peptacol 20 (972 Pharmax) †s4A	—	—	—	—
tablets 20	5	6ea	—	7 4
200	47	0ea	—	62 8
R Phospholine Iodide (802 MS) †s1	—	—	—	—
vial 3 mgm	17	6ea	—	26 3
6-25mgm	19	6ea	—	29 3
12-5mgm	22	6ea	—	33 9
D Prepacol (349 Damancy)	—	—	—	—
I Prepacol (894 Nichcolas)	—	—	—	—
Rubelix (972 Pharmax) †DDI	—	—	—	—
A 4oz	35	0	—	3 11

A = Price Advanced  
R = Price reduced  
● = New entry  
D = Delete  
C = Correction  
I = Insert

R Salazopyrin (1497 PGBL) †s4B	—	—	—	—
(distributors 802 MS)	—	—	—	—
tablets 0-5gm	100	28	4ea	42 6
500	106	0ea	—	159 0
EN-tabs	100	34	0ea	51 0
R Saventine (972 Pharmax)	—	—	—	—
tablets 30mgm	30	8	7ea	11 6
250	65	8ea	—	87 7
D Serplex (518 Glaxo) tablets	—	—	—	—
R Skopyl (1497 PGBL) s1	—	—	—	—
(distributors 802 MS)	—	—	—	—
drops 5mils	60	0	—	7 6
D Sunbeam (1199 Sunbeam) existing entry	—	—	—	—
I Sunbeam (1199 Sunbeam)	—	—	—	—
electric shavers	—	—	—	—
X555 multi-volt	126	6ea	33	11ea
X777	158	6ea	42	6ea
X711 cordless	210	10ea	56	6ea
	—	—	—	202 7
	—	—	—	253 10
	—	—	—	337 7

R Sustac (972 Pharmax) †	—	—	—	—
tablets 2-6mgm 30	99	0	—	11 0
250	63	3ea	—	84 4
6-4mgm 30	122	0	—	13 7
250	78	8ea	—	104 11
R Synalar (649 ICI) TS	—	—	—	—
cream 15gm	94	0	—	11 9
30gm	13	9ea	—	20 7½
ointment 15gm	94	0	—	11 9
30gm	13	9ea	—	20 7½
R Synalar-N (649 ICI) TS	—	—	—	—
cream 15gm	8	1ea	—	12 1½
30gm	14	0ea	—	21 0
ointment 15gm	8	1ea	—	12 1½
30gm	14	0ea	—	21 0
● Tetra Delta (1263 Upjohn) TS VPO	—	—	—	—
suspension (vet.)	—	—	—	—
12x10cc 40	0ea	—	—	60 0
● Thawpitt (1221 Thawpitt)	—	—	—	—
Spotkleeners 5	22	0	—	2 6
● Ubretid (117 BPL)	—	—	—	—
ampoules 0-5mgm 6	40	0ea	11	0ea
tablets 5mgm 12	106	8ea	29	4ea
● Vitapointe (1530 Fisons)	—	—	—	—
hair spray 25	8	7	1	3 6
50	10	14	0	6 11
16oz 69	8	19	2	9 6
D old size	—	—	—	—
● Wiz-Set (888 Newey)	—	—	—	—
heated hair curlers	8	—	—	19 6

AMINMENTS AND ADDITIONS  
KEY TO SUPPLIERS

- 451 F & J=Fassett & Johnson Ltd. 96 De Beauvoir Road, London, N.1. Spartan 0055.  
888 Newey=Newey Goodman Ltd., Robin Hood Lane, Hall Green, Birmingham, 28. Shirley 6681.  
1397 P de LL=Parfums de Lucien Lelong, Ltd., 96 De Beauvoir Road, London, N.1. Spartan 0055.

# Furan

lowest cost Nitrofurantoin BP

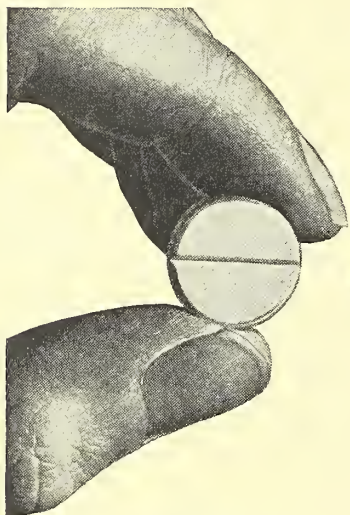
50mg tablets 23/- per 50

100mg tablets 43/- per 50 Basic NHS prices

Chelsea Drug Chemical Company Limited 310 Old Brompton Road London SW5







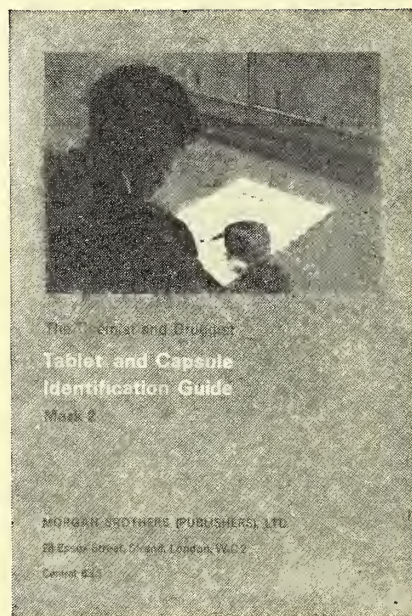
# IF YOU NEED TO KNOW

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The Guide, which has had an enthusiastic reception, deals with the identifiable products - 1,750 in all - of 180 manufacturers, taking into account colour, shape, size and manufacturers' markings. From colour grid numbers the user is led to tables of detailed information that narrow down the possibilities to the ultimate - usually an individual tablet. Alphabetical cross-references contribute to ease and speed in use.

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## Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

### Metric Doses

SIR,—I wonder whether any of your readers are faced with the enigma of assessing the correct dose to be dispensed on proprietary preparations that doctors often prescribe for their paediatric patients. The most logical metric dose for children, and the one which the British Pharmaceutical Codex and Australian Pharmaceutical Formulary, 1964, recommend is 5 mils. The Health Service here in Australia insists that the medicine shall be taken in a graduated metric measure rather than by the inaccurate measure of the teaspoon. Even the specially designed teaspoons put out by some manufacturers cannot be regarded as being as accurate as a properly graduated metric medicine measure. It is disconcerting to find manufacturers presenting suspensions, etc., in the following metric dosage:—

Phenytoin sodium suspension	30 mgm. 4 mils
Primidone suspension	250 mgm. 3.5 mils
Chlorpromazine syrup	25 mgm. 3.5 mils

Is the best way to overcome the problem:

1. To convert the suspension to a 5 mil dose, by making the appropriate dilution; or
2. To suggest to the mother of the child that she should measure out the approximate 3.5 or 4-mils, as the case may be, with the medicine measure supplied? That, surely, is not a satisfactory way to take drugs such as phenytoin sodium or primidone, where the correct amount of drug is essential if the patient is to control epilepsy. Is there a good reason why manufacturers are still thinking in terms of the teaspoon?

J. R. K. SCOTT, Ph.C., M.P.S.,  
Saratoga, N.S.W.,  
Australia

[Arrangements for the supply of spoons for metric doses was given in the *C. & D.*, June 11, 1966, p. 575.—EDITOR]

### Unfair to Scotland

SIR,—I am writing this letter as a private individual and not as chairman of the Local Pharmaceutical Committee for Aberdeen and Kincardine. In June 1965 a gentleman of some standing in Aberdeen asked me to contribute towards sending a delegation to a meeting of pharmacists in the Albert Hall. I had no hesitation in doing so when it was explained to me that Boots, Ltd., were to open pharmacies in supermarkets. At that meeting the majority were quite right to protest and prevent Messrs. Boots from carrying out their intentions. But where has all this led us? I should say that the Society has now been taken over by a vociferous minority. Is it really to be thought for one moment that the Ministry of Health or the Scottish Home and Health Department would subsidise pharmacies as at present? Let us all come to our senses and put

our businesses in order as Messrs. Boots have done. In my estimation they are the best run business in the United Kingdom. In a decade they doubled their overturn. What a pity this could not be applied to our elected Governments. September 1964 saw the English chemists awarded a fee of approximately 3d. above that of Scottish and Northern Ireland chemists. Since then the Pharmaceutical Standing Committee has been fighting for justice. It is a sordid state of affairs that such a situation should exist in the year 1967. When a war breaks out between the English and another country they come along and conscript the flower of our manhood. All our industries are geared to the English way of life. In 1967 what is our reward? Tolls on our bridges, etc. Why? The inequality is beyond my comprehension. It would be a good idea to send the management of Boots, Ltd., into Whitehall and St. Andrew's House.

D. J. CRUICKSHANK,  
Turriff, Aberdeenshire

### A Medicines Amnesty

SIR,—Now I am free from the responsibilities of active business, I get many more calls to speak to schools, Youth Clubs, Rotary Clubs and other organisations, on the subject of medicines in particular and drugs in general. The interest now shown in the subject by people of all classes and types of intelligence is quite surprising. It is due in part, no doubt, to the greater publicity drugs are receiving in the Press and on the television. Many citizens, sincerely anxious to stop the increase in drug taking or prevent it occurring, have requested that suitable film or other publicity should be made available to them, indicating the serious dangers and effects of drug taking and addiction. As a pharmacist, I feel that my duty is to warn all that I can to see that, once drugs leave my hands, they should be kept in a safe place and not made easily accessible to any person other than the one they are prescribed or intended for. One of the excellent rules suggested by the Society in its "Medicines — With Care" leaflet is that all unused or unwanted medicine for which there is no further use when treatment is stopped or changed, should be thrown away down a lavatory. Many meeting me later within weeks of a lecture or talk have told me they went home and discarded all old medicine in that way. Many more, of course, pay no heed, and I am therefore not surprised that the suggestion of a "medicines amnesty" is well received and welcomed in most places. Chemists throughout the country could well be invited to place in their shops, in a convenient and prominent place, a large box or container suitably labelled, inviting the public to place all unused or unwanted medicines they have, in it, to be finally destroyed. One notable source of drug

supply, namely the home, would thus be eliminated or considerably reduced.

MARTIN RUTTER

[It would surely be even better to hand over the medicine to the pharmacist. Placing it in a receptacle might be a temptation to irresponsible customers to help themselves. — EDITOR]

### Restriction a Compelling Need

SIR,—The Prime Minister, in this Welfare State of ours, declared in a television interview recently that he is bent on getting Britain into the Common Market and is even ready to face Cabinet resignations on that issue if necessary. At the same time the Minister of Health seems to be not too much in favour of restricting distribution of medicines by law to pharmacies as the only proper outlet, as is the legal position in most countries on the Continent of Europe. Since the safety of the consumer is at stake, just as no barber can be authorised to deal with electricity, so no grocer or other untrained tradesman can be entrusted properly with dealings in medicines of any kind. That is a principle in all continental countries. As a member of the European Common Market Britain could certainly not differ in such matters. Pharmacists, according to present legislation in this country, are regrettably only "authorised sellers of poisons," but even aspirin and boric acid may cause disaster, in spite of not being listed as poisons. The variety of similar trade marks is, moreover, a grave danger for any one who has not the professional knowledge required for distinguishing between the host of preparations available, while the growing addiction in this country certainly does not recommend extensions of supply outside the authorised pharmacies. There is also no question of pharmacy or dispensing. Pharmacy is based on a number of scientific subjects that enable correct and reliable dispensing, which is therefore included in professional pharmacy. *Salus populi* is not a matter to be taken lightly. It must remain *suprema lex*.

C. J. RAWSKI-CONROY,  
St. Albans, Herts

### Rural Dispensing

SIR,—Time is passing by and the Minister of Health has still not made any move regarding dispensing by doctors in rural areas, his excuse being that he has to await the views of the British Medical Association with regard to Section 5 of the Third Report. Surely it is to the doctors' advantage to delay and delay as long as possible so that more can take up dispensing. What evidence have we that the Minister is pressing the B.M.A.? Even when things are finalised there will be the time taken to consider the position of each area and dispensing doctor by the dispensing Committee. Then we have the twelve months' notice which it is suggested should be given to a doctor to cease to dispense for some or all



MERVYN MADGE,  
Plymouth, Devon

## Counting Out

C. H. FRANCIS,  
Ludlow, Shropshire

## Puzzling Indeed

L. T. KIME,  
St. Albans, Herts

## Gimmickry and Judgment

DI COTTAMY

## Boost by Discount

SIR,—I am being bombarded with sales promotion for a new treatment for athletes' foot. I am also being told that the success of this product (made under licence for an American company) will lead to a "boost for my profits." The literature goes on to state that the product is "realistically priced for counter sales" and once again repeats the message that the product will boost my profits all the year round. Basic discount for this product is 33½ per cent. on cost, with the added incentive of a further 10 per cent. discount on direct purchases. Let us hope

## BRANCH EVENTS

## ENFIELD

## Ethical Marketing

PAUL A. ROBERTS,  
Conway, Caernarvonshire

## PREScription POSER

Ry  
Cult. Trenchard 80  
(17500)  
Sgr. lvs.  
wb. Buffacina 100  
& w. lvs.  
transverse rib-1

who required it. The marketing man would constantly look for new markets. Fundamental discoveries provided new opportunities, but so too did markets where current therapy was inadequate, and a new approach or formulation could provide opportunities. For example, the asthma inhaler market at one time was relatively small. Riker, Ltd., evolved an improved product based on an aerosol and the market has expanded to one worth over £1 million through wider acceptance of a more satisfactory therapy. While everyone recognised the value of research-based "ethical" pharmaceuticals, formulated products often came in for much criticism, most of it unjust. Combinations of drugs were not selected haphazardly but were chosen to meet the needs of the majority of patients. Presentation and packaging were becoming of increasing importance. They must not be unnecessarily costly or bulky, but must adequately protect the product. Mr. Wing felt that many changes would come about, particularly as plastics technology expanded. One of the first innovations would be the wider use of pressed plastic and foil packing as used in many of the oral contraceptive packs. He stressed the important contribution made by the pharmaceutical companies to the progress of medical therapy. The marketeer in the pharmaceutical industry, he said, was dedicated to seeing that the needs of the market (the patient and the profession) were met, and to ensuring that his company remained a viable commercial enterprise so that research could proceed, and that all the resulting advances could be fully developed for the wider benefit of mankind.





# C&D CHEMIST AND DRUGGIST

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## Cell-charge and Neoplasms

A NEW hypothesis to explain why malignant tissue is not rejected by the host has been put forward in the *Lancet* (April 1, p. 708) by Drs. G. A. Currie and K. D. Bagshawe, working at Fulham Hospital, London. The hypothesis is based on the concept that many, if not all, tumour cells have a negatively charged pericellular coat, repelling the lymphocytes, which are also negatively charged and which are believed to play a decisive rôle in the immune response.

The work showed that embryonic tissue normally in contact with the maternal tissue (trophoblast) undergoes gross cell-breakdown when grown *in vitro* in the presence of maternal lymphocytes. The reason suggested for such *in vitro* antigenicity is that the fibrinoid coat around the trophoblastic cells is removed during trypsinisation before culture. Foetal cells, since they contain genetic material derived from each parent, have a different constitution from that of the mother (i.e. are allogeneic). Allogeneic cells are normally rejected by the body but a mechanism does, of course exist, whereby the mother can accept her child. A substance sialomucin, similar to placental fibrinoid, has been shown by other workers to be present on the surface of malignant cells, and to confer a negative charge to cell surfaces.

Elaborating their "electrochemical barrier" hypothesis Drs. Currie and Bagshawe point out that sialomucins are found in other situations that are immunologically atypical, as well as in cartilage which, like trophoblast, can be successfully transplanted to allogeneic recipients.

be highly complex and would not necessarily be favourable to the control of tumours.

In brief outline, then, the hypothesis is that mutant cells, which are antigenic, would be subjected, in contact with lymphocytes, to scrutiny and elimination, but that any such cells masking their antigenicity with a high electro-negative surface charge would escape and would, unless controlled by other means, exhibit the characteristics of neoplasia. If the hypothesis were substantiated and practical means were found of applying it, it could lead to important developments in the control of cancer, in the prevention of tissue-transplant rejection, and in the treatment of autoimmune disease.

## Overseas Trade in Pharmaceuticals

UNITED Kingdom exports of medicinal and pharmaceutical products during February were valued at £5.9 million, against £5.42 million in February 1965. With the addition of medicated and unmedicated dressings, etc., the total — as classified under division 54 of the Overseas Trade Accounts (H.M. Stationery Office, price 30s.) — was £6.51 million (against £5.93 million). A list of the items making up the total, together with a few bulk pharmaceutical chemicals listed in another division, are given below.

The month's largest customer for United Kingdom exports of pharmaceutical products was New Zealand, with purchases valued at £380,000. Australia came second with £357,000, followed by the Irish Republic (£354,000) and Nigeria (£326,000). Sales to countries in the European Free Trade Association (including Finland) was valued at £736,000, and to the European Economic Community at £1,007,000.

Imports during the month were again on a fairly high scale, being valued at £1,138,000, against £858,000 in February 1966, antibiotics accounting for 28 per cent. of that figure. Of the total imports the United States provided about one-fifth, Western Germany a little over one tenth, while the Irish Republic supplied another one-tenth. Criticism is sometimes raised in the Republic of Ireland at the quantity of pharmaceuticals imported from Britain, but traffic is by no means one-way today. Out of the £736,000 worth of antibiotics exported from the Republic in 1965, United Kingdom took 60 per cent., and 1966 figures are expected to show a considerable increase.

EXPORTS	£'000		£'000		£'000
Vitamins in bulk	175	Organotherapeutic glands, etc.		Sulphonamides, bulk	112
" products	105	" bulk	15	" tablets	50
Antibiotics		" products	20	" other products	44
Penicillin, bulk	175	Sera and vaccines	140	Proprietary medicines	2,002
" injections	110	Aspirin, bulk	33	Unclassified medicines	885
" tablets, ointments, etc.	246	" products	33	IMPORTS	
other antibiotics, bulk	394	Antihistamines products	42	Vitamins	53
" products	577	Antipaludics products	85	Antibiotics	321
Alkaloids, bulk	138	Barbiturates, bulk	73	Alkaloids	108
" products	21	" products	22	Glycocides, glands, sera, vaccines	35
Hormones, bulk	220	Medicated confectionery	51	Proprietary and veterinary medicines	452
" products	264	Ointments, liniments*	68	All other	168
Glycosides	41	Surgical dressings	588	* not specified elsewhere	

In mice one effect of surface charge is that tumour growth is stimulated by exogenous acid mucopolysaccharides and another that protamine, a strongly electro-positive basic peptide, reduces the volume of experimental tumours. However, while the behaviour of cells can be profoundly affected by the surface charge, *in-vivo* effects of ionically active agents, it is pointed out, might

## Any Business Questions?

*Some years ago my bank manager told me that we could overdraw up to £500 for short periods. Recently, the new manager said that he had not been informed of it by his predecessor, but suggested that if our house were owned by me and mortgaged to the bank it would be all right. That could be arranged, but the*



*house really belongs to my wife's mother and we feel that such an arrangement might upset her quite unnecessarily. Do you consider this reasonable?*

THERE is no reason in any case why the ownership of the house should change hands. It could always be used to secure a loan whoever owned it. In the circumstances you describe the expense of such an arrangement is hardly justified. Most banks will grant accommodation to customers of good standing in that sort of situation.

*We have paid the maximum permitted remuneration to directors for corporation tax purposes, but the inspector of taxes says that if we include benefits in kind for directors' cars we have exceeded the sum, and the excess must be added on to the profit and corporation tax paid on it. Is this right?*

THE inspector is correct. The director's remuneration includes not only his pay but any benefits. If their total exceeds the maximum corporation tax must be charged on it.

*I am proposing to buy a pharmacy and have to pay for the lease and goodwill. My solicitor has suggested that I should divide the cost of the lease and goodwill into its two elements. I do not know how to set about this. Which should bear the highest proportion?*

LEASES are wasting assets for capital gains tax purposes whereas goodwill is not. Thus the smallest sum should be attributed to the lease and the larger part to goodwill. On a subsequent sale, capital gains tax would thus be minimised.

*Our pharmacy is organised as a limited company. Our accountant has been working out our tax position and he says that we have what he calls a 'shortfall' for corporation tax. He says we could be called on to pay income tax at the standard rate on this. After paying the corporation tax we shall have only sufficient funds to carry on the business effectively and a further tax burden would be 'the straw that broke the camel's back.' Is there any way of dealing with this?*

YOUR question really answers itself. If you can show that

your resources are insufficient after meeting your obligations and providing for future developments to enable you to pay a dividend, those arguments are sufficient to enable you to challenge the allegation that there is a 'shortfall'.

## RECENT RESEARCH

### IRRITANT EFFECTS OF GLYCERIN AND OTHER COMPOUNDS

GASTROINTESTINAL irritant effects of glycerin, sorbitol and propylene glycol are compared in a study conducted in the United States by R. Staples, A. Misher, and J. Wardell, jun. of Smith, Kline & French Laboratories (*Journ. pharm. Sci.*, 1967, 56, 398). Glycerin is used in the vehicle of many liquid pharmaceutical preparations but the authors note that the literature contains little information about its effects on the gastrointestinal tract. They have compared the compounds by orally administering glycerin, propylene glycol, 90 per cent. sorbitol, and aqueous dilutions of all three substances to rats and dogs. Doses of the test compounds, ranging from 0.75 mil per kilo to 15.0 mil per kilo were given to the animals three times a day for a total of eight doses. An hour following the final dose, the animals were sacrificed, and the stomach and attached portion of the duodenum were removed for gross visual and microscopic examination to determine the degree of hyperemia or erosion. The authors report that undiluted glycerin and aqueous dilutions containing more than 40 per cent. glycerin produced moderate to severe gastrointestinal irritation. More dilute solutions of glycerin in water were comparable with propylene glycol and sorbitol which produced little irritation at any concentration. Although the test compounds were administered to animals, the investigators feel that the effects observed should be a factor for consideration during the formulation of liquid preparations designed for oral administration to the human.

## APPROVED NAMES

### Pharmacopoeia Commission issues Supplementary List

THE following supplementary list of approved names has been issued by the British Pharmacopoeia Commission. The statements in parenthesis in the second column indicating the action and use of the compound are based solely on information provided by the maker.

APPROVED NAME	OTHER NAMES
Amiloride	N-Amidino-3,5-diamino-6-chloropyrazinamide (MK-870 is the hydrochloride. Diuretic)
Bisoxatin	2,3-Dihydro-2,2-di-(4-hydroxyphenyl) benz -1,4-oxazin-3-one (La-271a, Wy-8138 and Laxonalin are the diacetate. Laxative)
Bupivacaine	1-Butyl-2-(2,6-xylylcarbamoyl) piperidine (AH 2250 is the hydrochloride. Local anaesthetic)
Cellacephate	A partial mixed acetate and hydrogen phthalate ester of cellulose (Enteric coating)
Cephaloglycin	7-[D(-)- $\alpha$ -Aminophenylacetamido] cephalosporanic acid (Kefglycin. Antibiotic)
Clofluperol	4-(4-Chloro-3-trifluoromethylphenyl)-1-[3-(4-fluorobenzoyl)propyl]piperidin-4-ol (R. 9298. Neuroleptic)
Clothiapine	2-Chloro-11-(4-methylpiperazin-1-yl)-dibenzo[b,f][1,4]thiazepine (Tranquilliser)
Cromoglycic acid	1,3-Di-(2-carboxy-4-oxochromen-5-yloxy)-propan-2-ol (FPL 670 is the disodium salt. Treatment of allergic airway obstruction)

APPROVED NAME	OTHER NAMES
Desolone	11 $\beta$ ,17 $\alpha$ -Dihydroxypregna-1,4-diene-3,20-dione (R.D. 20,000 is the 17-propionate Corticosteroid)
Dichromium trioxide	Chromium sesquioxide (Diagnostic aid)
Dopamine	2-(3,4-Dihydroxyphenyl) ethylamine (Sympathomimetic)
Emepromium bromide	Ethyl dimethyl-1-methyl-3,3-diphenylpropyl-ammonium bromide (Cetiprin. Anticholinergic)
Flumetroxone	17 $\alpha$ -Hydroxy-6 $\alpha$ -trifluoro-methylpregn-4-ene-3,20-dione (Demigran is the acetate. Treatment of migraine)
Fluprofen	2-(3'-Fluoro-4-biphenyl)propionic acid (R.D. 17345. Anti-inflammatory; analgesic)
Hydroxyurea	Hydroxyurea (Hydroxycarbamide (I.N.N.). Hydreia. Antineoplastic agent)
Hypromellose	A partial mixed methyl and hydroxypropyl ether of cellulose (Laxative)
Meladrazine	2,4-Di(diethylamino)-6-hydrazino-1,3,5-triazine (Lisidonil is the (+)-tartrate. Polysynaptic inhibitor)
Minepentate	2-(2-Dimethylaminoethoxy) ethyl 1-phenyl-cyclopentanecarboxylate (UCB 1549. Treatment of the Parkinsonian syndrome)
Mitoclomine	NN-Di-(2-chloroethyl)-4-methoxy-3-methyl-1-naphthylamine (Cytotoxic agent)
Mitopodozide	N'-Ethylpodophyllohydrazide (SPI Cytotoxic agent)

APPROVED NAME	OTHER NAMES
Nifuratel	5-Methylthiomethyl-3-(5-nitrofurfurylidene-amino)oxazolidin-2-one (Macmior. Treatment of trichomoniasis)
Octavercine	6,7-Dimethoxy-1-(3,4,5-triethoxyphenyl)-isoquinoline (Antispasmodic)
Oxypurinol	1-H-Pyrazolo[3,4-d]pyrimidin-4,6-diol (B.W. 55-5. Xanthine oxidase inhibitor)
Pentagastrin	t-Butyloxycarbonyl- $\beta$ -alanyl-L-tryptophyl-L-methionyl-L-aspartyl-L-phenylalanine (BOC-Ala, Try. Met. Asp. (I.N.N.) Wy-3263 is the hydrochloride. Gastrin-like polypeptide)
Pramindole	5-(3-Dimethylaminopropyl)-6,7,8,9,10,11-hexahydro-cyclo-oct[b]indole (Iprindole (I.N.N.). Wy-3263 is the hydrochloride. Antidepressant)
Tetracosactrin	Synthetic $\beta$ 1-24 corticotropin (Synacthen. Synthetic corticotrophin)
Tiemonium iodide	4-[3-Hydroxy-3-phenyl-3-(2-thienyl)propyl]-4-methylmorpholinium iodide (Antispasmodic; anticholinergic)
Trifluperidol	1-[3-(4-Fluorobenzoyl)propyl]-4-(3-trifluoromethylphenyl) piperidin-4-ol (R. 2498; Triperidol. Neuroleptic)
Virginiamycin	An antibiotic produced by <i>Streptomyces virginiae</i> (Virginimycin (I.N.N.). Antibiotic)



# SODIUM ALGINATE RAW MATERIAL

## Russians find a new source

**M**OST of the world's sodium alginate is made at San Diego in California. Other large producing countries are Norway and Britain. More than fifty kinds of alginate are said to be made in Norway, and more than 20 kinds in Britain. Alginic acid is one of the main natural constituents of brown seaweeds and is usually extracted from them in the form of the sodium salt, which is subsequently purified.

In Britain, alginates are extracted from the long, thick-stemmed tangle weed, notably *Laminaria cloustoni* and *L. digitata*, as well as from rockweeds such as *Ascophyllum nodosum*. The tangle is cast on the shore by storms; the rockweed has to be cut from the rocks. In Russia only one alginate has so far been manufactured, and that has been derived from *Laminaria*. But two papers have recently been written by Dr. A. Tsapko (Soviet Minister for Fishing Husbandry), in which he indicated an alternative raw material, on which considerable research and development have already been carried out. Uses envisaged for the alginate embrace applications in foods, beverages, perfumery, leather, textiles, medicine and drilling or boring.

The Russian weed cystozura (*Cystoseira barbata*) occurs widely in the warmer parts of the Atlantic and Pacific Oceans; in Russia it grows in the north parts of the Sea of Japan, and in the Black Sea along the beaches of Odessa, the Crimea and the Caucasus regions. In growth, *Cystoseira* is more like the *Ascophyllum* rockweeds than the tangles or stem weed. It produces dense masses of cylindrical fern-like branches that form a bushy plant, carrying air vesicles. The weed is extremely abundant—a necessary factor for any raw material that is going to be used industrially.

### Alginic Acid Content

The alginic acid content of brown seaweeds depends on the season of harvesting. On the absolute dry weight of *Cystoseira* the alginic acid content varies from 38 to 44 per cent. That is significantly greater than the corresponding content of *Laminaria*, and might make *Cystoseira* the most valuable raw material of all for alginate. Another factor in its exploitation is that the conditions for harvesting and treating the weed are favourable on the Black Sea coast. The rich reserves of *Cystoseira* in that region were fully demonstrated a year or two ago by Kalugina, and it was concluded that they would support a large alginate industry. The estimates then made of the reserves of *Cystoseira* from the Caucasus and Crimea were more than 1½ million tons.

Extraction trials were carried out at an Archangel agar factory, where a process was worked out. After having been carefully washed in running water, the *Cystoseira* weed is exposed to live steam at 21-28 lb. per sq. in. for 1 hour in order to break down the cellulose that it contains and so facilitate the extraction of the alginic acid. Then the weed is treated with a solution of 2 per cent. caustic soda (ratio 10:1 on the weight of dry weed) and 20 per cent. soda ash. The weed mixture is then drenched with cold water, heated and boiled with continual mixing for 4 hours at a pressure of 40 lb. per sq. in. The whole is pressed through a sieve into a settling tank diluted with water (ratio 30:1 by volume) and mixed for 5-10 minutes. The settling process takes 1 hour. The solution after settling is pressed through filter bags into an intermediate container. During the process of settling there are added several buckets of a clearing solution of bleaching powder. The settling temperature should be no higher than 20°C. The residue from the settling tank may be diluted and led into another tank for use with the next batch.

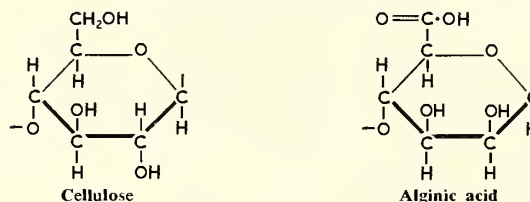
After the intermediate operations there is introduced into the solution some sulphuric acid to precipitate the alginic

acid. The precipitate is washed and squeezed partly dry, and then fed into a mixer, where it is mixed with bicarbonate of soda to reconvert the alginic acid into sodium alginate which is dried on a roller dryer.

In experimental work both cold and hot digestions of *Cystoseira* were tried, and the properties of the alginates extracted by the two methods are shown below. In Table I properties of sodium alginate made from *Cystoseira* (experimentally in 1964 and also in 1965) are compared with those of material from *Laminaria*, which may be regarded as the standard refined material used internationally.

Property	From <i>Laminaria</i>	From <i>Cystoseira</i> cold method		From <i>Cystoseira</i> hot method	
		1965	1964	1965	1964
Colour	Brown	Brown	Dark brown to black	Brown	Dark brown
Moisture(%)	18.0	6.8	10.3	10.2	6.4
Ash	30.0	24.0	19.0	27.2	25.8
Viscosity of solution	2.5-3.0	2.9	5.1	3.8	3.4
Free alkali(%)	0.2-0.3	0.01	Nil	Nil	0.6
Alginic acid content(%)	60-66	60.3	56.0	69.0	68.0
Insol. in hot water(%)	1.0	0.1	0.5	0.7	0.5

The sodium alginate that has been made in Russia from *Laminaria* is evidently different from the commercial material made and can be bought in Britain, America (California) and Norway, which is almost cream in colour. Some of the commercial grades sold in the West for industrial non-food uses are brownish in colour but none of them could be correctly described as dark brown. The ash and the alginic acid figures of the Russian products are not too easy to understand. The formulae of alginic acid and of cellulose are similar, thus (only the half repeat is shown):—



Only the structural unit is shown. Both alginic acid and cellulose are highly polymeric, with a molecular weight running perhaps as high as 100,000 and with each linear molecule made up of hundreds or thousands of rings. But the structural units will serve for making calculations.

The alginic acid radicle has a molecular weight of 176, so that that of sodium alginate will be 198. Accordingly the ash of sodium alginate, which should be Na<sub>2</sub>O, should be 62/(2 x 176) or 17.6 per cent. If the sodium alginate contained 10 per cent. of moisture, then the ash, if it were otherwise pure, would be 15.8 per cent. (14.1 per cent. if it contained 20 per cent. moisture). Similarly the alginic acid content should be 176/198, or 88.9 per cent., or, if the sodium alginate contained 10 per cent. moisture, 80.0 per cent. (71.1 per cent. if it contained 20 per cent. moisture). How, then, does it come about that the ash of most of the Russian varieties is 24-30 per cent., the alginic acid content so low? The only explanation is that the Russian alginates are impure and contain foreign matter. The impurity is obviously something that is soluble in hot water and it would be useful to know the calcium and potassium contents of the products.

The colour of the sodium alginate obtained by the hot method from *Cystoseira* has been characterised by the



Central Research Institute for the Russian cotton industry as unsuitable for use as a fabric printing gum (*i.e.*, a thickener for the printing paste, normally an important use for sodium alginate and especially so since the advent of the reactive dyes). It is stated, however, that sodium alginate made from *Cystoseira* by the cold method can be used for such a purpose and that experiments carried out in the Seaweed Research laboratories to lighten the colour have given good results, and the appropriate Ministry has decided to set up a pilot plant to develop sodium alginate made from *Cystoseira* on the shores of the Black Sea.

The yields of the products are also difficult to understand. Although *Cystoseira* has the abnormally high content of 40 per cent. of alginic acid on dry weight of weed, against

about 25 per cent. for *Laminaria*, the yield of sodium alginate has apparently been lower from *Cystoseira* than from *Laminaria*. Evidently the project is still in an early stage and much has still to be learned about the best method of processing the weed. But it still remains significant to the alginate industry that there is an abundance of accessible weed with an alginic content of 40 per cent. on its dry weight and that it occurs in a sparsely populated region where extraction would be permitted.

## REFERENCES

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3. L. Newton, "Seaweed utilisation", Sampson Low, London (1951).

## Pharmaceutical Society of Ireland

### MONTHLY MEETING OF COUNCIL

(Concluded from THE CHEMIST AND DRUGGIST, April 1, p. 309)

A LETTER was received from Mr. K. A. Bowman, Staffords' Medical Hall, Dunmore, co. Galway, pointing out the difficulty that arose in implementing the poisons regulations in the absence of doctors and the risks and hardships inflicted on the public. No permanent appointments of dispensary doctors were being made. Having referred to the scarcity of doctors in parts of co. Galway, he said that the middle-income group was hard hit, north-east Galway being without a private doctor. Where there were no doctors there were no pharmacies — and no prescriptions. Dispensing duties were being carried out by locums residing in distant towns. The recent poisons regulations only added to the difficulties. They seemed to be copied from England — an industrial area with a National Health Service, as opposed to a rural area without one. In England the patient could obtain a prescription without cost, delay or inconvenience. He suggested that one thing should be done without delay, even though a stop-gap measure — to allow the chemist to give a twenty-four hours' supply of anything the patient needed to tide him over until he could see a doctor.

Sympathy was voted to the relatives of Mr. M. Ryan, the Society's architect; to Mr. V. Harte, of the College academic staff, on the death of his mother; to Professor P. J. Cannon, on the death of his father and to the relatives of Arthur Law Smith, L.P.S.I.; Patrick M. Quinn, R.D.; Patrick James Sheehan, M.P.S.I., and Edmond Hassett, M.P.S.I.

#### Display of Dispensary Fittings

Arising out of the Practice of Pharmacy Committee report, it was agreed if feasible, to present a display of fittings appropriate to the dispensing department of community pharmacies. The exhibition, depending on the response to an appeal being made by the Society to manufacturers of such fittings, is being held at the College of Pharmacy.

Apologies for absence were received from Messrs. Gleeson, Harty, Mulreany, O'Sullivan and Walsh.

The names of Bernard J. Feeney, L.P.S.I., and Mrs. Judith Smyth (*née* Burke) Assistant, were restored to the Registers.

The Licence certificate of Michael Joseph Kennedy, Ballylough, Ferns, co. Wexford, was signed and sealed.

Matthias John Murphy, Main Street, Macroom, co. Cork, was granted registration in the Pharmaceutical Chemists' Preliminary register.

Anne Rita Carroll, 118 Barrack Street, Cork, and Cathleen Ann Mary Lawlor, 1 Goldsmith Terrace, Bray, co. Wicklow, were granted registration in the Pharmaceutical Assistants' Preliminary Register.

Marriage certificates having been submitted, Mrs. Judith Smyth (*née* Burke), Assistant; Mrs. Helen T. O'Flynn (*née* McDonnell), M.P.S.I., and Mrs. Naula E. Dooley (*née* O'Brien), L.P.S.I., were granted change of name in the Registers.

The following were elected to membership:— Mrs. Catherine M. Perkins, L.P.S.I., Tighe Mhuire, 5 Ard Easmuinn, Dundalk, co. Louth; Dr. Catherine Digan, L.P.S.I., 11 Howth Road, Sutton, co. Dublin; Mrs. Margaret M. Stone, L.P.S.I., 41 Main Street, Croom, co. Limerick; Mrs. Norah C. Cronin, L.P.S.I., 4 Springfield Park, Templeogue, Dublin, 6; Samuel Irwin, L.P.S.I., Corner House, Omeath, co. Louth; Matthew J. Smith, L.P.S.I., 51 Barton Road, Rathfarnham, Dublin, 14.

The following were nominated for membership:— Catherine Harnett, L.P.S.I., Trieneragh, Duagh, Kilmorna, co. Kerry; Mary T. Hever, L.P.S.I., Main Street, Castleblayney, co. Monaghan; Mrs. Margaret M. O'Byrne, L.P.S.I., Sutton, co. Dublin; J. J. Keogh, L.P.S.I., 40 Terenure Road East, Rathgar, Dublin, 6; T. G. Cronin, L.P.S.I., Ballymacelligott, Tralee, co. Kerry; J. J. McHenry, L.P.S.I., 68 Clontarf Road, Clontarf, Dublin, 3.

The following changes of address were noted:— Mrs. Naula E. Dooley, L.P.S.I., to Main Street, Roscrea, co. Tipperary; Mary Fitzpatrick, L.P.S.I., to St. Vincent's Hospital, St. Stephen's Green, Dublin, 2; S. S. O'Duinn, L.P.S.I., to 79 College Park, Newbridge, co. Kildare; W. F. Walsh, L.P.S.I., to The Rock, Midleton, co. Cork; T. A. O'Brien, L.P.S.I., to 41 Arnold Grove, Glenageary, co. Dublin; A. M. O'Malley, M.P.S.I., to 100 Baillie Street, Horsham, Victoria, Australia; J. G. Pitt, M.P.S.I., to 183 Portage Road, New Lynn, Auckland, New Zealand; Joan M. O'Keefe, to 52 Lower Baggot Street, Dublin; Mrs. Margaret Grufferty, to Castle Street, Cahir, co. Tipperary.

Members present were Messrs. T. R. Miller; R. J. Power; W. E. Boles; H. P. Corrigan; C. J. Cremen; Miss L. Cunliffe; D. J. Kennelly; F. Loughman; V. G. McElwee; J. B. Murphy; J. P. O'Donnell; G. C. O'Neill; M. Power; and R. J. Semple.

At a meeting of the Benevolent Fund, which followed, a number of grants were passed for payment. On the motion of MR. R. J. POWER, seconded by Mr. T. R. Miller, the Committee's thanks were extended to the West of Ireland Chemists' Dance Committee on its contribution of £144 11s. 9d. to the Fund — the proceeds of their annual dance. "I think it is a wonderful achievement," commented THE PRESIDENT.

### A PHARMACIST'S ANTHOLOGY A CASE OF APHASIA

From "Strictly Business," by O. Henry

ONCE or twice good Doctor Volney, my friend and physician, had warned me. "If you don't slacken up, Belford," he said, "you'll go suddenly to pieces. Either your nerves or your brain will give way. Tell me, does a week pass in which you do not read in the papers of a case of aphasia—of some man lost, wandering nameless, with his past and his identity blotted out—and all from that little brain-clot made by overwork or worry?" "I always thought," said I, "that the clot in those instances was really to be found on the brains of the newspaper reporters." Doctor Volney shook his head. "The disease exists," he said "... Better take warning in time."



# Finance in the Pharmaceutical Industry

## PAPERS ON INTERNATIONAL PATTERN AND STATE RESEARCH

THE two final papers in the series of winter lectures organised by the Office of Health Economics were given on March 7 by PROFESSOR S. J. WELLS (professor of Economics, University of Salford) and DR. J. C. CAIN (deputy-chief executive, Applied Science Department of National Research Development Corporation). Their contributions are given in shortened form.

### American and Swiss Holdings

Professor Well's paper examined some of the reasons for the international nature of the pharmaceutical industry, and implications affecting the company, the national economy, and the balance of payments.

Of seventy-five member firms in Division B of the Association of the British Pharmaceutical Industry (those manufacturing medical and dental speciality products) only thirty-one are British-owned. American-owned firms account for more than half the total of prescription medicine sales, while five Swiss firms account for 12 per cent. While many overseas-owned companies operate in the United Kingdom, a large number of British pharmaceutical firms have built up extensive interests overseas, some almost as important as in the home country. Only if output is large—often necessitating a world market—can the relatively high expenditure on research be maintained without unduly inflating unit costs. Thus the sheer size of research effort is a driving force in sales expansion. Moreover research tends to be more expensive as the frontiers of knowledge advance. If research expenditure and goodwill may be regarded as part of a firm's capital, a high level of "financial plough-back" is necessary in order to maintain momentum in development. If British companies had not been operating on a world-wide scale, they would have been unable to finance out of profits the heavy research and development expenditure necessary for maximum growth.

According to A.B.P.I. sources, the foreign-owned stake in the U.K. pharmaceutical industry in 1963 was over £55 million. What do the United Kingdom industry and economy gain from the presence of such foreign-owned and foreign-controlled giants in their midst? So far as the pharmaceutical industry is concerned, undoubted external economies from the operations of United States, Swiss and French companies in the U.K. The foreign firms are usually in the forefront of research and business methods. An important "overspill" effect is advantageous to the British-owned sector of the industry. If no foreign-owned firms operated in Great Britain, the overall size of the industry would be smaller, and a number of economies external to the individual firm would no longer exist. Fruitful research depends essentially upon the regular meeting together of minds engaged in solving interrelated but usually distinct problems,

and the pharmaceutical industry above all others cannot afford to be parochial in its outlook. Nor should it be overlooked that many of the foreign-owned companies that have established themselves or expanded in recent years are in parts of the United Kingdom where there is relative underemployment. There is no means of measuring the inflow of capital resulting from the operations of foreign companies in the U.K.—but it has been estimated that, in 1963, 'subventions and financial transfers' from foreign parent companies to their subsidiaries in the U.K. amounted to about £2.3 million. Though such companies send abroad much more than that (perhaps £6 million), it would be a mistake to overlook the 'inflow' element—a credit item on the U.K. balance of payments. The practice of U.S. and Swiss companies seems to be to remit rather less than half the profits made in the U.K. A substantial part of the total retained in the U.K. is devoted to research and development expenditures. In 1964, the total research expenditure of foreign-owned firms in the U.K. was estimated at £3.4 million—about a third of the total for all research expenditure by the industry in Great Britain. That part of the profits made by foreign companies can be looked upon as one of the sinews of growth of the economy. Foreign-owned firms also contribute substantially to British exports (£21 million is the figure suggested for 1963). With small doubt exports would have been smaller but for the existence of the international companies.

Subsidiaries of British companies appear to remit to the United Kingdom a rather higher proportion of their

is evidence that the strain has been a short-term rather than a long-term one. Virtually all the evidence points to the fact that, for British industry in general, the after-tax return on capital is higher in subsidiaries abroad than it is for the parent companies in the U.K. In part that is because few British companies (with the notable exception of Wellcome Foundation, Ltd.) conduct large-scale research activities in their overseas subsidiaries. But those overseas profits provide a valuable additional source of revenue to the companies—and from those revenues home research and development are financed. The British Government tax revenue also benefits substantially from the inflow of those profits.

If the British economy is to be driven forward with real dynamism into the last quarter of the twentieth century, spearhead industries like the pharmaceutical must play a leading part in that advance. To do so they must become truly international.

TABLE 1—INTERNATIONAL OWNERSHIP IN U.K. PHARMACEUTICAL INDUSTRY, DECEMBER 1966

Nationality of company	No. of firms	Per Cent.	Market share 1964 <sup>1</sup>
U.K. ...	31	41	27
U.S.A. ...	25	33	53
Swiss ...	5	7	12
French ...	5	7	5
German ...	4	5	2
Netherlands ...	2	3	
Swedish ...	1	1	1
Danish ...	1	1	
Italian ...	1	1	
	75	100	100

<sup>1</sup> Share of Prescription medicine sales. Exports are excluded.

Source: A.B.P.I.

TABLE 2—SALES OF DOMESTIC OUTPUT (£M.)

	N.H.S.	Exports	Household Medicines	Other	Total
1963 ...	79.2	54.0	36.1	29.9	199.2
1964 ...	83.6	59.4	35.7	40.1	218.8
1965 ...	97.6	66.6	42.0	44.5	250.7

Source: A.B.P.I.

total profits than do foreign-owned companies in Britain. Treasury control now reinforces that tendency by insisting upon a "reasonable" rate of profit remission to the home country, often causing difficulties with foreign Governments that are equally insistent on keeping down remittances to their own concept of a "reasonable" level.

### Ploughing Back

Now that British companies operating overseas have been virtually forbidden to transfer capital from their U.K. resources, they must have recourse to more intensive ploughing-back of profits or raising local loan capital. Recently many companies have used the Euro-dollar market for the finance of their subsidiaries in Western Europe. The outflow of funds to finance development has clearly been a strain on the balance of payments, but there

### State Support for Research

DR. CAIN described the rôle of the National Research Development Corporation (N.R.D.C.), in promoting the commercial exploitation of leads coming from the Medical Research Council (M.R.C.) or from research financed by the University Grants Committee. They have included the cephalosporins, hecogenin and triiodothyronine.

While the Ministry of Health has power to conduct, or assist by grants or in other ways, research into matters relating to the cause, prevention, diagnosis or treatment of illness, such research is confined generally to investigations which can best be carried out at hospitals within the framework of the N.H.S. The wider and long term problems of medical research are the responsibility of the M.R.C. and



the whole of its income is devoted to this end. It is the main governmental agency specifically committed to promoting medical research. The second avenue, however, is through the U.G.C. via the money it provides for research workers in various university departments. Finally there is a contribution, albeit a small one compared with the other two sources by the Science Research Council (S.R.C.), which also provides money for research in the Universities. M.R.C. spent £9 million in the year 1964-65. The U.G.C. have not in the past given a breakdown of their spend on research and development (R. & D.) between different subject matters—although they may attempt to do so in the future. However, in 1961-62 it was estimated that its contribution to medical research was £8 million. At that time the total Government supported civil R. & D. in the Universities was approximately £21 million (presumably mainly from U.G.C.). Since in 1964-65 this total University civil R. & D. figure had risen to £38 million it can be fairly assumed that the figure in this for medical research is likely to be not less than £10-11 million. It is rather difficult to arrive at a S.R.C. figure but it is relatively unimportant, say £½ million. Thus the M.R.C., plus U.G.C. plus S.R.C. contribution make a total Government investment of approximately £20 million. This compares with a U.K. pharmaceutical industry investment of about £11 million.

#### Maintaining and Increasing Business

It is obviously incumbent on industry to spend its R. & D. monies generating the sort of information which will most likely lead as quickly as possible to new products or improved processes of manufacture. These are the means whereby sales and profits are maintained or increased and business is based on doing just that. This means that inevitably most of its research must be of an applied and practically oriented character. In this context it is also worth remembering that important leads in chemotherapy subsequently opening up areas of both basic and applied research have in the past (and still will) arise through selective or indiscriminate screening of chemical compounds for biological activity. On the other hand, while it is obvious that at least the State also has a significant interest in both the availability of new drugs and their price, the responsibilities of the state in the field of medicine range much more widely than this across a broad front. While the large majority of state supported research cannot be expected to contribute directly to innovation outside of the industry, it will nevertheless be contributing indirectly on a continuing basis to innovation inside the industry. This arises simply as a result of the scale and character of the work. Clinical research and trials carried out in the teaching hospitals are an essential part of the innovating process for industry, and in this area the state is proposing to make an increased contribution through the setting up by the M.R.C. of their new clinical

research centre now in the building at Northwick Park.

Since innovation is at least in part a function of the total R. & D. effort, it is to be expected that at least from time to time state sponsored research will contribute directly to innovation in the pharmaceutical industry. The National Research Development Corporation have since being set up, handled well over 100 items in the pharmaceutical field (excluding other biological chemicals such as veterinary medicine, insecticides, herbicides, etc.). Out of these about fifteen have been licensed. That may seem to be quite a high success rate. It has to be qualified by saying that so far only two of the licences can be represented as major ones, although there are several others which have made significant contributions to income. There are also a number which have been licensed relatively recently and which may yet produce substantial income. Of course the good work of uncovering yet more new and we hope important inventions goes on apace. Many of these useful inventions have stemmed from the M.R.C.'s laboratories or work in the

Universities supported in part by M.R.C. funds. Total income to date from pharmaceuticals is well over £1 million and rising quite rapidly. Put another way, it represents innovations worth substantially in excess of £20 million net sales value. While all this represents innovation and in some way contributes to the balance of payments, not all of this stems from sales by U.K. companies. The Corporation licences on an international basis, albeit taking into account always the interest of the U.K. industry. Licensing must take into account such things as the territories protected and the markets and the inherent and/or long term strength or weakness of the patent protection. Of the more than 100 items referred to, in 19 N.R.D.C. supported development work; of the nine of these completed only two were commercially successful: ten are still current. Already the business [in cephalosporin] is substantial and this situation looks as if it could be the first real winner to emerge in the pharmaceutical field from the linking through N.R.D.C. of state-supported research to industry.

## A £5 MILLION MARKET

### Pharmacists should win their share

A PLEA to pharmacists to win their rightful share of a market of approximately £5 million a year was made by Mr. S. Bull, M.P.S., in an address "Modern Dairy Farm Hygiene—Progress and Potential" to members of agricultural and veterinary pharmacy group of the Pharmaceutical Society on March 5.

#### Progress in Chemical Sterilisation

Mr. Bull reviewed the progress that had been made in the chemical sterilisation of dairy equipment. Prior to 1959 boiling water or steam sterilisation were the approved methods, but later the use of hypochlorites was accepted. The approval of the quaternary ammonium compounds followed. Their potential appeared to lie in their development as combined detergent sterilisers. Used at elevated temperatures they showed promise, but their predisposition to adhere to protein prohibited their complete acceptance, also they were incompatible with certain anionic detergents. Iodophors had superseded the quaternary ammonium compounds following the discovery by Shelanski that certain surface active substances could solubilise iodine to form compounds in which its germicidal activity was preserved. The acidic nature of the iodophor had established its acceptance in two fields of dairy hygiene—as a teat dip and in the manual cleaning of bulk farm tanks. As a teat dip a less acid preparation was used which provided an effective cheap and speedy mastitis control mixture. Properly applied the acid mantle of the skin was maintained and the prolonged residual germicidal activity of the preparation utilised. There had been some criticism that iodophor preparations chapped or cracked the teats but in Mr. Bull's experience that was generally due to incorrect mixing or dilution or that dirty

udders were not washed with clean water in the first instance to remove grit, etc. The resulting damage was apparent in the form of deep linear scratches.

For the cleaning of bulk farm tanks a high acidic value "aided sterility" at the same time proved effective for the dissolving of milkstone residues.

Mr. Bull then went on to refer to milk standards that were at present enforced. Failure to pass the resazurin test that measures milk souring or acid forming bacteria, had resulted in farmers losing £123,000 during the year ending March 1966. Nearly 58 million gallons of milk had failed the tests equal to 2.9 per cent. of total supplies.

There was also a compositional quality scheme of payment for milk whereby farmers received bonus payments for top-quality milk. The standard was based on the "total solids" in the milk which could be affected by the age of the cow, period of lactation and feeding. Another cause was subclinical mastitis and if only 50 per cent. of a herd was affected a farmer could lose 1½d. per gallon because of low "total solids" figures.

### EXPORT ACHIEVEMENTS

MR. C. HARRIS (joint managing director, Hough Hoses & Co., Ltd., Chapel Street, Manchester), reports that experts of the company's products have doubled since 1965. Products in the Ster-Zac range are being repackaged with export in mind and literature on the products is being prepared in English, French and German. Mr. Harris, who recently returned from a two day conference in Basle, Switzerland, was asked to give a series of talks to Swiss trade officials, interested in the use of Ster-Zac products in hospitals and maternity clinics.



# TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are augmented before wholesale dealers receive the goods into stock.

LONDON, APRIL 4: Trading in most sections was on the light side during the week. A number of CRUDE DRUGS were marked down through lack of business but others that have been rising lately because of shortage were again dearer.

Higher were CANADA BALSAM (by one shilling per lb.), BELLADONNA ROOT by a penny per lb., and CINNAMON BARK by 20s. per cwt. All grades of COCHINEAL showed a fall. Also easier were PODOPHYLLUM *Emodi* (by 5s. per cwt.), TURMERIC for shipment (by one shilling per cwt.) and Spanish AGAR by 6s. 6d. per lb. There was virtually no business in IPECACUANHA and the root from all sources was quoted lower by about one shilling per lb.

Among ESSENTIAL OILS, Mysore SANDALWOOD was again available on spot after a considerable absence. The scarcity of offers of Chinese ANISE and Brazilian BOIS DE ROSE continued and prices were marked up 1s. per lb. in the case of anise and sixpence for bois de rose. Chinese CITRONELLA was fractionally easier; LEMONGRASS for shipment was down ninepence per kilo, PATCHOULI by 5s. per lb., PETITRAIN by sixpence lb., Chinese and Brazilian PEPPERMINT by sixpence lb., and Chinese SPEARMINT by 2s. 6d. per kilo. Madagascar CLOVE LEAF remained firm as did Sicilian LEMON and English-distilled BUCHU.

Among PHARMACEUTICAL CHEMICALS, PANTHENOL and VITAMIN E were lower in price.

## Pharmaceutical Chemicals

ACETANILIDE.—Crystals, 1-cwt. lots, 3s. 6d. per lb.; 5-cwt., 3s. 5d.

ALUMINIUM CHLORIDE.—Pure, in 50-kilo bags, 5s. 1d. per kilo.

AMIDOPYRIN.—Per lb. 16s. 8d. for 5-cwt. lots; 1-cwt., 17s. 5d.

ANEURINE.—HYDROCHLORIDE (per kilo) one-kilo lots, 96s. 6d.; 10-99 kilos, 94s. 6d. per kilo. The MONONITRATE is 100s. and 6s. for similar quantities.

ASCORBIC ACID.—1-kilo, 32s.; 10 kilos, 28s. per kilo; 25 kilos, 29s. Coated is 2s. 6d. per kilo more and SODIUM ASCORBATE 7s. 6d. more than the acid.

BENZYL BENZOATE.—B.P. in 1-ton lots, 8d. to 4s. 9d. per lb. as to container.

BISMUTH SALTS.—(Per kilo):—

Quantity	Under 50	50	250
	s. d.	s. d.	s. d.
ARBONATE ...	81 1	79 3	78 3
ALCYLATE ...	74 10	73 0	—
IBGALLATE ...	70 4	68 6	—
IBNITRATE ...	74 10	73 0	72 0

CAFFEINE.—HYDRATE in 50-kilo lots and over, 25s. 3d. per kilo; CITRATE, 20s. 11d.

CALAMINE.—50-kilo lots, 4s. 3½d. per kilo, 1,000 kilos, 4s. 2½d. kilo.

CALCIFEROL.—1-kilo lots are from 2s. 7½d. per gm. in standard packages.

CALCIUM CARBONATE.—B.P. light precipitated powder, 1-ton lots, £37 10s. per ton in 50 bags, ex works. PREPARED powder, £2 10s. per ton.

CALCIUM CHLORIDE.—Fused, 3s. 11d. per kilo in 12½-kilo tin for 100-kilo lots.

CALCIUM GLUCONATE.—1-4 cwt., 4s. 3d.; 1-ton, 4s.

CALCIUM LACTATE.—B.P. is £412 per 1,000 kilo for 250-kilo lots.

CALCIUM PANTOTHENATE.—92s. 6d. per kilo for 1 to 9 kilo lots.

CANTHARIDIN.—Per kilo 11.511s.

CHLOROXYLENOL.—B.P.C., 5s. 10d. per lb. for 1-cwt. lots.

CITRATES.—(Per kilo):—

	50 kilos	250 kilos	1,000 kilos
	s. d.	s. d.	s. d.
SODIUM ...	5 4	4 10	4 8
POTASSIUM ...	5 7	5 1	4 11
IRON AND AMMONIUM ...	9 8	9 4	9 1

CORTISONE.—1-kilo lots, ACETATE 4s. 6d.; HYDROCORTISONE ACETATE OR ALCOHOL, 4s. 6d. per gm.

CREAM OF TARTAR.—Home-trade:—One-ton lots, 241s. per cwt.; 10-cwt., 242s.; 5-9 cwt., 243s.; 2-4 cwt., 244s.; 1-cwt., 245s. (If supplied in bags deduct 5s.).

CREOSOTE.—B.P.C., 159, ex beechwood, 100 kilos, 16s. 6d. per kilo; 500 kilos, 16s.

CRESOL.—B.P. quality, 7s. 9d. per gal. in 5-gall lots.

CYANOCOBALAMIN.—100-gm. lots are 52s. 6d. per gm.

DICOPHANE (D.D.T.).—1-ton lots, 70-74 per cent., 2s. 3d. per lb.

DIENOESTROL.—B.P. is 1s. 3d. per gm. for 5-kilo lots.

DIGOXIN.—100-gm. lots are 44s. per gm.

DITHRANOL.—B.P. offered at 6s. 9d. per oz. for 7-lb. lots.

DOMIPHEN BROMIDE.—B.P.C., grade, 32s. per lb. in 1-cwt. lots.

EMETINE.—One-kilo lots HYDROCHLORIDE, 11,431s. per kilo.

EPHEDRINE.—HYDROCHLORIDE, 4s. 3d. per oz.

ERGOMETRINE.—MALEATE, B.P., 147s. per gm. for 5-gm. lots; ERGOTAMINE TARTRATE, 29s. 6d. per gm. for 100-gm. lots.

ETHER.—Per lb. in winchesters; B.P. TECHNICAL, B.S.S., 5-cwt. 2s. 9d.; (4s. 4d. per litre). In drums the price is 2s. 1d. per lb. ANAESTHETIC, B.P., 6-cwt., 3s. 11½d.; 10-cwt., 3s. 7½d.

FOLIC ACID.—B.P. and U.S.P., 1-kilo lots, £16 10s. per kilo.

GLUCOSE.—(Per ton) MONOHYDRATE, B.P. powder, £71 10s. delivered in 1-ton lots; ANHYDROUS, £134. LIQUID, 43° Baumé from £58 2s. 6d. (5-drum lots).

HEXAMINE.—B.P.C. 1959, 50-kilo lots are 6s. per kilo.

HEXAMINE MANDELATE.—50-kilo lots, 27s. per kilo; 1,000 kilos, 23s. 6d.

HISTAMINE.—The ACID PHOSPHATE is £200 per kilo.

HYDROXOCOBALAMIN.—For 100 gm. lots, 105s. per gm.

HYOSCYAMINE SULPHATE.—1-kilo lots, 1,181s.

INOSITOL.—1-kilo, 100s.; 10 kilos, 90s. per kilo.

IODIDES.—(Per kilo) POTASSIUM, 21s. 6d. (for 50-kilo lots). SODIUM, 28s. 6d. (for 25-kilo lots). AMMONIUM, 46s. 6d.

IODOFORM.—Powder (per kilo), 55s. 3d. in 50-kilo lots; less than 50 kilos, 56s. 9d. Crystals are 6s. 6d. per kilo more.

MENAPHTHONE.—(100-kilo lots). B.P. 110s. per kilo; ACETOMENAPHTHONE, B.P., 122s. 6d.; WATER-SOLUBLE (menadione sodium bisulphite), 78s. per kilo for 100-kilo lots.

NICOTINAMIDE.—(Per kilo). 1-kilo 31s. 6d.; 10-100 kilos, 28s. 6d.

NICOTINIC ACID.—1-kilo, 26s. 6d.; 10-100 kilos, 23s. 6d. per kilo. Feed grade, 21s. to 23s. kilo as to quantity.

NIKETHAMIDE.—50-kilo lots are 52s. 9d. per kilo.

D-PANTHENOL.—1 to 9 kilos, 165s. per kilo; 10 kilos, 160s. per kilo.

PYRIDOXINE.—1-kilo, 185s. per kilo; 10 kilos, 182s. 6d.; 25 kilos upwards, 177s. 6d. per kilo.

RIBOFLAVINE.—1-kilo, 172s. and 10 kilos, 168s. per kilo. Feed-grade, minimum 96 per cent., 160s. and 155s. respectively.

SODIUM PANTOTHENATE.—Per kilo, 105s. for 1- to 9-kilo lots.

VITAMIN A.—ACETATE powder 325,000 i.u. per gm. from 70s. to 75s. per kilo; 500,000 i.u. per gm., 105s. to 132s. 6d. Oily concentrate, up to 10,000 m.i.u., 25d. per m.i.u. down to 2d. m.i.u. for 50-100,000 m.i.u.

VITAMIN D.—D2 powder for tableting 850,000 i.u. per gm. 125s. per kilo; in oil, 1 million i.u. per gm. 67s. 6d. per kilo for 100,000 m.i.u. Crystalline: see under calciferol. D3 in oil (1 mega per gm.), threepence per mega for less than 100-gm. ampule.

VITAMIN E.—Tocopheryl acetate, 255s. per kilo; 10 kilos, 250s. per kilo.

ZINC CARBONATE.—25-kilo lots, 4s. 7d. per kilo.

ZINC CHLORIDE.—B.P.C. 1959, sticks, 19s. 2d. per kilo,

ZINC OXIDE.—2-ton lots, B.P. grade, are now £131 10s. per ton; 1 ton, £132 10s.

ZINC PEROXIDE.—1-cwt. lots of B.P., 5s. 3d. per lb.

ZINC SULPHATE.—B.P., 50 kilos, 3s. 6½d. per kilo.

## Industrial Chemicals, Solvents

ACETALDEHYDE.—The 100 per cent. is £122 per ton minimum 1-ton lots.

ACETATES.—Per ton, spot in drums: AMYL, technical £251 and B.S.S., £253. BUTYL, £128; ETHYL, £103; ISOBUTYL (80 per cent.), £105 and pure, £108; ISOPROPYL, £100; METHYL, 80 per cent., £142.

ACETIC ANHYDRIDE.—12-ton lots, £103 per ton; 2½-ton, £107, tanker deliveries.

ACETONE.—1-ton lots spot, £68 per ton in drums.

N-BUTYL ALCOHOL.—1-ton lots in drums, £123 per ton and one-drum lots, £132 per ton.

CARBON TETRACHLORIDE.—4-ton lots, in drums £84 per ton.

ISOPROPYL ALCOHOL.—Technical grade (99 per cent.) in tank car lots from 4s. 6d. to 4s. 8d. per gall.

METHYL ETHYL KETONE.—1-ton lots, £103 per ton. One-drum lots, £112 ton.

NAPHTHALENE.—Long-term contract rates for large quantities of phthalic grade are about £24 per ton in bulk, ex works. Supplies are short and any spot available could command £50 to £55 ton.

PHTHALATES.—Prices (per ton) 1-ton lots in drums; Di-BUTYL, £153; Di-ISOBUTYL, £148; Di-ETHYL, £171; Di-METHYL, £161.

PHTHALIC ANHYDRIDE.—Domestic material ex contract, from £86 per ton, supplies very tight. Spot-lots would command a heavy premium.

STEARATES.—Minimum 1-ton lots, ALUMINUM (No. 1), £243 10s. per ton and (non-gel.), £281; CALCIUM (precipitated), £243 10s.; LEAD (30 per cent.), £245; MAGNESIUM (standard), £257 and (super-fine), 287, ZINC, £246 to £276 as to grade.



## Crude Drugs

**AGAR.**—Kobé No. 1 for shipment, 22s. 3d. lb. c.i.f.; spot cleared. Spanish 25s., duty paid.

**ALOE.**—(Per cwt.). Cape primes, spot, 22s.; shipment, 210s., c.i.f. and Curacao, 400s. spot nominal; shipment, 385s., c.i.f.

**BALSAMS.**—(per lb.): CANADA: Shipment, cleared, spot, 36s. COPAIBA: B.P.C. spot, 11s. 6d.; shipment, 6s. 6d., c.i.f.; PERU: spot, 16s.; shipment, nominally, 14s. 6d. to 15s., c.i.f.; TOLU: B.P. from 12s. 6d.

**BELLADONNA.**—LEAVES, 4s. 3d. per lb., spot; shipment, 3s. 10d., c.i.f. HERB, 3s. 3d. spot; root, 2s. per lb., spot; shipment, 1s. 10d., c.i.f. nominal.

**BENZON.**—Sumatra block B.P.C., spot £27 per cwt.

**BUCHU.**—Spot, 10s. 3d. per lb. nominal; shipment, 9s. 9d. to 10s. 3d., c.i.f.

**CALUMBA.**—Mozambique root, 125s. per cwt. spot.

**CAMPOR.**—B.P. powder for shipment, 4s. 4½d. per lb., c.i.f.; spot, 5s.

**CARDAMOMS.**—(per lb.). Alleppy greens, 21s. 6d., spot; shipment, 15s. 6d., c.i.f. Prime seed, spot, 33s.; shipment, 29s., c.i.f.

**CASCARA.**—Spot, 245s. per cwt.; shipment also 245s., c.i.f.

**CHAMOMILE.**—Belgian flowers, 15s. to 16s. per lb., spot; German type, 7s. 6d.

**CHERRY BARK.**—Thin natural, on spot 2s. 8d. per lb.; shipment 2s. 5d., c.i.f.

**CHILLIES.**—Zanzibar spot, 365s. per cwt., shipment, 300s., c.i.f.; Mombasa, 400s.

**CINNAMON.**—BARK, Seychelles, 160s. cwt. spot; shipment, 150s., c.i.f.; Ceylon quills for shipment, five 0's, 10s. 9d., two 0's, 9s. 6d. seconds, 8s., quillings, 5s. 1½d. lb., all c.i.f.

**CLOVES.**—Zanzibar, standard grade, spot quoted at 2s. 11d. per lb.; shipment, 2s. 8d., c.i.f.

**COCHINEAL.**—(Per lb.). Canary Isle silver-grey, 16s. spot; black brilliant, 19s. 6d.; Peruvian silver-grey, 12s.

**COCILLANA.**—Bark from 2s. 10d. to 3s. per lb., on the spot; shipment, 2s. 6d. to 2s. 10d., c.i.f.

**COLOCYNTH PULP.**—Spot, 3s. 10d. per lb.; shipment, 3s. 9d.

**CUBEBS.**—Spot quoted at 285s. cwt.

**DANDELION.**—Root is 165s. per cwt., spot, shipment, 160s., c.i.f.

**DRAGONS BLOOD.**—Aden, spot offered at £25 cwt.

**ERGOT.**—Portuguese—Spanish, spot, 11s. per lb.; shipment, 10s. 6d. c.i.f., nominal, Continental, 9s., spot.

**GENTIAN.**—Root is firm at 215s. per cwt., spot, and 210s., c.i.f.

**GINGER.**—(Per cwt.). Nigerian split, 70s. spot, shipment, 80s., c.i.f.; peeled, spot 145s., shipment, 140s., c.i.f. African spot, 155s. Jamaican No. 3, spot, 255s., shipment, 245s., c.i.f.; Cochinchina, spot, 187s. 6d.; shipment, 160s., c.i.f.

**GUM ACACIA.**—Kordofan cleaned sorts, 250s. per cwt., spot; shipment, 235s., c.i.f.

**HONEY.**—(per cwt., c.i.f.). Australian light amber, spot, 125s. to 130s.; and medium amber, 110s. to 115s. Argentine, 105s. to 110s.; Canadian, 175s. to 180s.; Mexican, 115s. to 120s.; Chinese (April-May), 85s. to 100s.

**HYDRASTIS.**—Spot is 36s. per lb.; shipment, 34s. 6d., c.i.f.

**IPECACUANHA.**—Matto Grosso for shipment, 43s. per lb., c.i.f., spot, 50s. Costa Rican, 59s. 6d., spot; forward 56s., c.i.f. Colombian, spot, 49s. 6d. nominal, shipment, 45s., c.i.f.

**JALAP.**—Mexican whole bulbs, 4s. per lb. on spot; shipment, 3s. 9d., c.i.f. Brazilian, 1s. 9d., c.i.f.; spot, 1s. 11d.

**KOLA NUTS.**—West African halves are 7½d. per lb. on the spot; shipment, 7d., c.i.f.

**LANOLIN.**—ANHYDROUS, B.P. is from 2s. 2½d. to 2s. 6d. per lb. in 1-ton lots delivered free drums. Commercial grades from 1s. 4½d. and cosmetic, 2s. 8d.

**LEMON PEEL.**—Spot, 1s. 9d. per lb.; partially extracted, 1s.

**LIME FLOWERS.**—Spot, 2s. 2d. per lb.

**MENTHOL.**—(Per lb.). Chinese shipment 29s. 6d., c.i.f.; spot, 32s. 6d. duty paid. Brazilian for shipment, 28s. 9d., c.i.f.; spot, 31s. 6d., duty paid.

**MERCURY.**—Spot, £185 per flask of 76 lb., ex warehouse.

**MYRRH.**—Spot 430s. cwt.

**NUTMEGS.**—(Per lb.). West Indian, spot defectives, 5s. 3d.; shipment, 4s. 9d., c.i.f.; round unsorted, 7s. 6d.; spot, 7s. 6d., c.i.f., for shipment; 80's, 11s. 6d. spot; shipment, 9s. 3d., c.i.f., East Indian for shipment, b.w.p., 4s. 3d., 110's, 8s. 3d.; 80's, 9s., all c.i.f.

**NUX VOMICA.**—Cochin, 110s. per cwt. on the spot; shipment, 80s., c.i.f.

**OLIBANUM.**—Spot is from 195s. to 250s. cwt. as to grade.

**ORANGE PEEL.**—Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: West Indian, 10½d.; Spanish, 4s. 9d.

**PEPPER.**—White Sarawak, 3s. 3d. per lb. spot; shipment, 3s., c.i.f. Black Sarawak, 2s. 7½d. spot; shipment, 2s. 2½d., c.i.f. Black Malabar, 285s. per cwt. c.i.f. Brazilian black No. 1, 2s. 8½d. lb. duty paid.

**PIMENTO.**—Sellers of Jamaican at 740s. per cwt., c.i.f. for shipment up to June 30.

**PODOPHYLLUM.**—*Emodi* 190s., per cwt. spot; shipment, 165s., c.i.f.

**QUILLAIA.**—Spot is offered at 175s. per cwt. and shipment at 165s., c.i.f.

**RHUBARB.**—Various grades offered at from 12s. to 30s. per lb. spot.

**SAFFRON.**—Mancha superior, spot. 1000s. per lb.; Rio, 950s.

**SARSAPARILLA.**—Jamaican native red, spot, 4s. per lb.; shipment, 3s. 6d., c.i.f.

**SEEDS.**—(Per cwt.). ANISE.—Spanish, 255s., duty paid. CARAWAY.—Dutch, 160s., spot. CELERY.—Indian, spot, 157s. 6d. sellers; shipment, 140s., c.i.f. CORIANDER.—Moroccan, 145s., duty paid; Rumanian splits, 120s., duty paid small quantities only available; shipment, Moroccan, 115s., c.i.f. CUMIN.—Spot, Cyprian, 260s.; Indian, 250s.; Iranian, 250s. duty paid. SYRIAN, 235s., duty paid. Shipment, Cyprian, 230s.; Indian, 238s., Iranian, 180s., all c.i.f. DILL.—Indian, 115s., spot; shipment, 87s. 6d., c.i.f. FENNEL.—No Chinese offering on spot. Indian, 155s.; shipment, Chinese, 85s., c.i.f.; Indian, 145s., c.i.f. FENUGREEK.—Moroccan, 82s. 6d., duty paid; shipment, 71s. 6d., c.i.f. MUSTARD.—English, 85s. to 105s. per cwt., according to quality.

**SENEGA.**—Canadian, 35s. per lb., spot and c.i.f.; Japanese, 18s. 6d. duty paid and 18s., c.i.f.

**SENNA.**—(Per lb.). Tinnevely LEAVES, spot; Prime No. 1, 2s. 3d.; No. 3, f.a.q., 1s. 3d. Shipment: No. 3, 1s. 1d., c.i.f. PODS Tinnevely hand-picked quoted from 2s. 2d. to 2s. 4½d.; manufacturing, 1s. 3d., shipment, 1s. 2d., c.i.f. Alexandria PODS: Hand-picked spot, 5s. to 7s.; manufacturing, forward, 2s. 1d., c.i.f.; spot, 2s. 6d.

**TURMERIC.**—Madras finger, spot, 100s. per cwt.; shipment, 92s. 6d., c.i.f.

**VALERIAN ROOT.**—Indian, spot, 190s. per cwt.; shipment, 180s., c.i.f. Continental root, 425s., spot; shipment, 410s., c.i.f.

**VANILLIN.**—(Per lb.). 5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d.

**WAXES.**—(Per cwt.). BEES'—For shipment, Angola, 560s., c.i.f.; Turkish, 560s. for 50 kilos, c.i.f.; nominal. CANDELILLA, spot, 465s.; forward, 460s., nominal. CARNAUBA, fatty grey, spot, 265s.; shipment, 260s., c.i.f., prime yellow spot, 430s.; shipment, 395s., c.i.f.

## Essential and Expressed Oils

**ALMOND.**—Spanish sweet oil is 6s. per lb. spot.

**ANISE.**—Chinese, spot, 12s. 6d. lb.; shipment, 11s. 6d., c.i.f.

**BOIS DE ROSE.**—Brazilian, spot, 22s. per lb.; shipment, 20s. 9d., c.i.f.

**BUCHU.**—Spot, from 640s. per lb. for English distilled.

**CASTOR.**—Home produced B.P. oil, spot, £148 per ton naked ex mill (2-ton lots).

**CEDARWOOD.**—American from 7s. 6d. per lb. on the spot; East African, 8s. 6d.

**CITRONELLA.**—Ceylon, spot, 4s. per lb.; shipment, 3s. 10½d., c.i.f.; Formosan, 4s. 6d. in bond and 5s. 3d., c.i.f.; Chinese, 3s. 9d. in bond; 3s. 7½d. c.i.f.

**CLOVE.**—Madagascar leaf for shipment, 8s., c.i.f., spot, 9s. 3d. duty paid. Rectified, 10s. Distilled bud oil, ENGLISH, B.P., 26s. per lb., for 1-cwt. lots.

**DILL.**—Imported from 36s. per lb., spot.

**EUCALYPTUS.**—Chinese, 80-85 per cent., 8s. 9d. per kilo in bond; shipment, 8s. 3d., c.i.f.

**FENNEL.**—Spanish sweet, 16s. per lb., duty paid.

**LAVANDIN.**—French from 20s. to 27s. per lb., as to quality.

**LEMONGRASS.**—Spot, 24s. 6d. per kilo shipment, 23s. 6d., c.i.f.

**OLIVE.**—For shipment: Spanish, £240 to £250 per metric ton, f.o.b. Spanish port. Other sources nominal. Spot, £295 to £305 per long ton, in drums, ex wharf.

**ORANGE.**—Floridan sweet, 5s. per lb.; Spanish from 19s. 6d.; Sicilian bitter, 65s.

**PATCHOULI.**—Spot, 40s. to 45s. per lb., duty paid; shipment, 32s. 6d. to 35s., c.i.f.

**PENNYROYAL.**—Forward shipment offers at 17s. lb. duty paid.

**PEPPERMINT.**—(Per lb.). *Arvensis*: Chinese for shipment, 9s. 6d., c.i.f.; spot, 10s. Brazilian for shipment, 7s. 9d., c.i.f.; spot, 8s. 6d. *Piperita*: Italian spot, 75s.; forward shipment, 82s. 6d. American from 36s. to 56s., as to source.

**PETITGRAIN.**—Paraguay for shipment, 14s. 9d., c.i.f.; spot, 15s. 3d. per lb.

**ROSEMARY.**—Spanish, 10s. per lb., duty paid.

**SAGE.**—Spanish, 21s. per lb.; Dalmatian, 26s.

**SANDALWOOD.**—Mysore, spot, 120s. lb., East Indian for shipment, 275s. per kilo, c.i.f.

**SPEARMINT.**—American oil on the spot, 74s. to 80s. per lb. Chinese, spot, 70s. per kilo, shipment, 67s. per kilo, c.i.f.

**THYME.**—Red, 27s. 6d. per lb., for 45-50 per cent., duty paid.

**VETIVERT.**—Bourbon, spot, 85s. per lb.

**YLANG YLANG.**—Best oil quoted about 135s.

## UNITED STATES REPORT

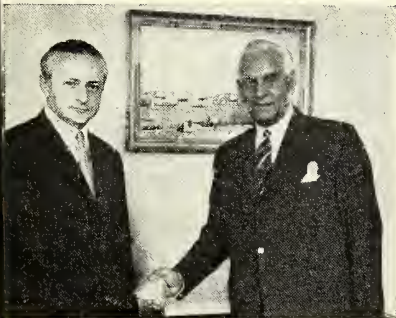
NEW YORK, APRIL 4: Prices for many industrial chemicals were moved upward on April 1 in accordance with previous announcements. They included SULPHURIC ACID, SODIUM BISULPHITE and GLYCERIN. Natural CAMPHOR was boosted five cents to 95 cent per lb. VITAMIN B1, was reduced to \$14.00 per kilo, down \$1.50. Brazilian MENTHOL fell 15 cents to \$5.10. Higher per lb. among CRUDE DRUGS were AGAR at \$4, up 25 cent, Curaçao ALOES at 50 cents, up 2 cents and SARSAPARILLA from Mexico at 70 cents, up 5 cents. Higher per lb. among ESSENTIAL OILS were Turkish GERANIUM at \$13.00, up 50 cents, and CEDARLEAF at \$7, up 25 cents.



## CLINICAL PHARMACOLOGY

### Hospital pharmacists' views

FOLLOWING recent controversy arising from a leading article in the *British Medical Journal* on the future of clinical pharmacology (*Brit. med. J.* 1967, i, 125, and *C. & D.*, January 28, p. 83) the council of the Guild of Public Pharmacists published a statement of its own views on the subject. The statement points out that the hospital pharmacist has made peculiarly his own the field of collecting and disseminating information about drugs. His accumulated reference material enables him to answer the many queries doctors put to him about drugs, to advise on the selection, presentation and dosage of a drug, and to warn about possible side effects, toxic reactions, or interactions with drugs administered concurrently. The hospital pharmacist's training and interests fit him to be a member of the team needed to prescribe and administer modern drugs rationally. While it is no part of the pharmacist's duties to examine patients and diagnose their diseases, the medical practitioner taking final responsibility for the patient's treatment, the doctor will place considerable reliance on the pharmacist's advice, just as he does on the observations of nurses and on the findings of biochemists and bacteriologists. The closer the integration of all those disciplines the better for the patient. The pharmacist's training also fits him for rôles in research into drug absorption and distribution in man, in organising clinical trials and in drug quality control. Current experiments, says the statement, in which the pharmacist visits the wards to examine prescriptions and make himself available to discuss with medical and nursing staffs the prescribing and administration of drugs are being watched, but the Guild recommends that only pharmacists who can make an adequate contribution should visit the wards in that way. It is a matter of regret to the Guild that more such experiments are impeded by lack of suitably experienced pharmacists.



**VISITOR FROM INDIA:** Mr. F. W. Griffin, managing director B.D.H. Group, Ltd., welcomes to the company's headquarters Lieutenant-General S. P. Bhatia, recently appointed vice-chairman of B.D.H.'s Indian subsidiary company. General Bhatia is on a four-week visit during which he will tour the company's London headquarters, the laboratory chemicals division in Poole, Dorset, and the biological research centre at Godalming.

## TRADE MARKS

### APPLICATIONS ADVERTISED BEFORE REGISTRATION

#### "Trade Marks Journal," March 22, No. 4621

For sensitised photographic films, sensitised photographic plates and electro-sensitive paper (1)

Device, 886,382, by Edgerton, Germeshausen & Grier, Inc., Bedford, Massachusetts 01730, U.S.A.

For artificial sweetening substances (1)

SUCROTEX, 897,934, SUCROSWEET, 897,938, by Boots Pure Drug Co. Ltd., Nottingham.

For hair creams, brillantines, toilet soaps, shampoos, toilet waters, perfumes, hair lacquers and non-medicated hand creams (3)

MARGO, 842,326, by Sidney Margolis, Ltd., London, S.E.17.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, shampoos, soaps, and essential oils, but not including such goods in the form of liquids or in the form of creams (3)

SPITFIRE, 890,622, by Sidney Margolis, Ltd., London, S.E.17.

For perfumes, non-medicated toilet preparations and shampoos, all being in gel form and for use in waving the hair; and make-up kits comprising such goods (3)

SUPERMA GELWAVE, 895,066, by Superma, Ltd., London, W.1.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair and shampoos (3)

SOLO, 897,098, by N.P.U., Ltd., London, N.14.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos and soaps (3)

DIPLOMAT, 897,449, by Beecham Toilettry Division, Brentford, Middlesex.

For non-medicated, toilet preparations, cosmetic preparations, soaps, perfumes, depilatory preparations, and preparations for the teeth and hair (3)

MILLY MARVEL, B897,866, by Lloyd-Hamoll, Ltd., London, W.1.

For preparations for the hair; cosmetic and non-medicated toilet preparations; detergents (not for use in industrial and manufacturing processes); soaps; and household cleaning preparations (3)

PROTRIEN, 898,486, by Colgate-Palmolive Co., New York 10022, U.S.A.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps, and essential oils (3)

BECKON, B898,777, by Beecham Toilettry Division, Brentford, Middlesex.

For perfumes, eau de Cologne, cosmetic preparations, dentifrices, non-medicated toilet preparations, toilet articles, soaps, and essential oils (3)

MOON SONG, 900,628, by House of Romney, Sandwich, Kent.

For pharmaceutical preparations and substances for human and veterinary use, disinfectants, sanitary substances; preparations for killing weeds and destroying vermin; all in tablet form (5)

ACTOTABS, 885,361, by Acton Pill and Tablet Co., Ltd., London, N.7.

For pharmaceutical preparations for the treatment of diseases of the human eye (5)

ISOPTO CETAPRED, 887,092, by Alcon Laboratories, Inc., Fort Worth, Texas, U.S.A. and London, W.C.2.

For pharmaceutical and medical preparations and substances (5)

U-SEPTIN, 894,218, by Wellcome Foundation, Ltd., London, N.W.1. REPARIVEN, 902,126, by Dr. Madaus & Co., Cologne-Merheim, Germany.

For medicated cork in slab form for prophylactic use in connection with cramp (5)

OLD WIVES TALE, B894,621, by Doris Rosemary Howell, Amersham, Bucks.

For pharmaceutical preparations and substances (5)

VITERAX, 895,089, by Biofarma, S.A., Neuilly-on-Seine, France, GRAMEX, 901,012, by Optrex, Ltd., Perivale, Greenford, Middlesex.

For veterinary brucella vaccines (5)

BORTIN, 895,162, by Glaxo Laboratories, Ltd., Greenford, Middlesex.

For medicinal and pharmaceutical preparations (5)

MICROFIN, 896,508, by Aspro-Nicholas, Ltd., Slough, Bucks.

For laxatives (5)

LAXACO, 896,955, by H. E. Daniel, Ltd., London, S.E.19.

For antibiotics, antibiotic preparations and preparations containing antibiotics (5)

BISOLVOMYCIN, 896,952, by C. H. Boehringer Sohn, Ingelheim on Rhine, Germany.

For antibiotic substances and preparations for application to the human body; and antiseptic and disinfectant substances (5)

TRIBACTRIC, 897,825, by Pigot & Smith, Ltd., Wigan, Lancs.

For infants' and invalids' foods and dietetic foods (5)

VEGULVIT, VEGUMINE, 901,214-15, by Dr. A. Wander, S.A., Berne, Switzerland.

For anti-emetic, analgesic and anti-vertigo preparations (5)

VONTROL, 901,496, by Smith, Kline & French Laboratories, Ltd., Welwyn Garden City, Herts.

For electronic time control units for photographic purposes, and parts thereof (9)

DENSITIMER, 897,764, by Ilford, Ltd., Ilford, Essex.

For bandages (10)

NETELAST, 889,655, by Roussel-Uclaf, Paris VIIe, France.

For pumps for the oral administration of medicaments to animals (10)

ORJET, 893,956, by Willows Francis, Ltd., London, E.8. and Epsom, Surrey.

#### "Trade Marks Journal," March 30, No. 4622

For chemical products used in industry, none being for use in the production of pharmaceutical goods (1)

DILATIN, 894,157, by Sandoz Products, Ltd., Horsforth, Leeds, Yorks.

For lawn sand containing mercuric compounds (1)

MERCUREX, B894,211, by Cannock Agricultural Co., Ltd., Bridgton, Staffs.

For perfumes and toilet waters (3)

SUSPENSE, 892,562, Beauty Counselors of London, Ltd., Newhaven, Sussex.

For non-medicated toilet preparations; cosmetic preparations, soaps, perfumes, dentifrices, preparations for the hair and toilet articles (3)

STRAKERS, B894,131, by Mary Quant Cosmetics, Ltd., Surbiton, Surrey.

For preparations for tinting the hair (3)

ATINTA, B896,421, by Nichol Beauty Products, Ltd., London, W.1.

For non-medicated toilet preparations for men (3)

CARLTO, 896,891, by Alfred Dunhill, Ltd., London, S.W.1.

For non-medicated toilet preparations and cosmetic preparations (3)

GREAT OAKS, 897,399, RALLYE, 897,405, by Avon Cosmetics, Ltd., Northampton.

For non-medicated toilet preparations for use in and subsequent to bathing (3)

BATH JEWELS, 897,688, by Bourjois, Ltd., Croydon, Surrey.

For detergents (not for use in industrial or manufacturing processes); and soaps (3)

POLYSUDS, B897,950, by Gerard Bros. Ltd., Nottingham.

For medicinal preparations for veterinary use (5)

Device of letter E, B865,378, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For algicides, bactericides and fungicides for agricultural, horticultural and veterinary use (5)

DI-PHEN, B886,178, by F.M.S. (Farm Supplies), Ltd., London, E.9.

For cosmetic creams (3)

EMANE, 895,163, by Alice McEnned, Ltd., London, E.18.



For pharmaceutical preparations for use as antacids and anti-flatulents (5)  
DIOVOL, 867,925, by Frank W. Horner, Ltd., Mount Royal, Quebec, Canada.

For medicated confectionery (5)  
THAWS, B8890,499, by Fryer & Co. (Nelson), Ltd., Nelson, Lancs.

For antiseptics and germicide solutions (being disinfectants), all for use on handkerchiefs or on paper or fabric tissues for use as handkerchiefs (5)

TCP HANKIWASH, 891,438, by Unicliffe, Ltd., Stonar, Kent.

For preparations for killing weeds and destroying vermin (5)

F.P.C.L., B893,604, by Fisons Pest Control, Ltd., Harston, Cambs.

For pharmaceutical preparations for human consumption (5)

NIVALIN, 894,182, by Laboratories For Applied Biology, Ltd., London, N.16.

For pharmaceutical, medical and veterinary preparations and substances (5)

HEXOVAX, 894,807, NEOSEPTIN, 894,809, by Wellcome Foundation, Ltd., London, N.W.1.

For menstruation appliances (5)  
Device, 895,605, by Giuseppe Costantini Bonanni, Milan, Italy.

For veterinary preparations and substances; and preparations and substances all for use in connection with the insemination of animals (5)

CAPRIDIL, 894,997, by Twyford Laboratories, Ltd., London, N.W.10.

For insecticides and fungicides, all for use on roses (5)

BASIROSE, 895,742, by Badische Anilin- & Soda-Fabrik, A.G., Ludwigshafen-on-Rhine, Germany.

For psychotropic drugs (5)  
IMIPREX, 896,746, by A. S. Dumes (Dumex, Ltd.), Copenhagen S, Denmark.

For veterinary and sanitary preparations and substances; and disinfectants; all for use in connection with animals of the equidae family; preparations for killing weeds and destroying vermin (5)

EQUIDIL, 897,663, by Twyford Laboratories, Ltd., London, N.W.10.

For deodorants packed in aerosol containers (5)

LISEITE, 897,091, by Practical Pharmaceuticals, Ltd., Newcastle-on-Tyne.

For medicated wines and beverages all for use in slimming, and preparations for making such beverages (5)

SLIMCEA, 898,192, by Procea Products, Ltd., Colnbrook, Slough, Bucks.

For pharmaceutical preparations and substances; and dietetic foods (5)

CURVIA, B899,565, by Ashe Laboratories, Ltd., Leatherhead, Surrey.

For surgical ligatures and surgical ligature materials (5)

ULTRALIN, 900,214, by London Hospital (Ligature Department), Ltd., Harold Hill, Romford, Essex.

For pharmaceutical, veterinary and sanitary substances (5)

AROMIL, 900,880, by Boots Pure Drug Co., Ltd., Nottingham.

For medicated bath preparations containing vitamins (5)

DOCTIBATH, 901,629, by Arnold & Christie, Ltd., London, S.E.1.

For pharmaceutical products for human and veterinary use (5)

BRULICORT, 902,693, by May & Baker, Ltd., Dagenham, Essex.

For razor blades (8)

FRAPPÉ, 894,530, by Hermann Zaiss, Solingen-Ohligs, Germany.

For photographic, cinematographic and optical apparatus (9)

SPOTA, B895,562, by Asahi Kogaku Kogyo, K.K., Chiyodaku, Tokyo, Japan.

For photographic apparatus and instruments (9)

AGILUX VIVA, 901,298, by Agilux, Ltd., Croydon, Surrey.

For feeding bottles; and cases and containers, for surgical, medical, veterinary and dental purposes (9)

VENPLAS, 896,637, VENLAM, 896,641, by Venesta, Ltd., London, E.C.4.

## PATENTS

### COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," March 8

Tetracycline derivatives. Chas. Pfizer Co., Inc. 1,065,715.

Tetracycline derivatives and process for their preparation. Chas. Pfizer & Co., Inc. 1,065,716.

Razor blades and methods of manufacture thereof. Wilkinson Sword, Ltd. 1,065,723-24.

Method for producing new bactericides and bacteriostats and the products thereof. Grodzkie Zakłady Farmaceutyczne "Polfa". 1,065,744.

N-Substituted fluoro-acetamides and their use as insecticides. Nippon Soda, K.K. 1,065,801.

Antibiotics and the manufacture thereof. Upjohn Co. 1,065,829.

Measles vaccine attenuated through avian choric-allanolic membrane. Americal Cyanamid Co. 1,065,875.

Production of isoxazole compounds and the products thereof. Shionogi & Co., Ltd. 1,065,889.

Purified extracts of *Gleditsia* species and compositions thereof. Laboratoire D'Analyses et de Recherches Biologiques Mauvernay, Centre Europeen De Recherches Mauvernay. 1,065,910.

Laminated razor blade for injector razor. Ever-sharp, Inc. 1,065,933.

Process for the preparation of 4-hydroxy-benzonitrile. Rhone-Poulenc, S.A. 1,065,936.

Hydrazine compound and preparation thereof. Chas. Pfizer & Co., Inc. 1,065,938.

Piperazine derivatives. Imperial Chemical Industries, Ltd. 1,065,946-47.

Dibenzo-cyclo-octenes. Merck & Co., Inc. 1,065,965-67.

1-Substituted carbostyrls. Upjohn Co. 1,065,973.

Benzotriazoles and their production. Geigy (U.K.), Ltd. 1,065,995.

Diphenoxy-acetic acid amide derivatives. Orsy-monde. 1,066,041.

Preparation of hydrazine derivatives. Whiffen & Sons, Ltd. 1,066,054.

Preparation of organic derivatives of hydrazine. Whiffen & Sons, Ltd. 1,066,055.

Method of preparing esters of methyl reserpate. Spofa, Sdruzeni Podniku pro Zdravotnickou Vyrobu. 1,066,067.

Method of resolving racemic steroids. American Home Products Corporation. 1,066,079.

Process for the preparation of penicillins. Beecham Group, Ltd. 1,066,107.

Preparation of steroid compounds having a hydroxy-group at position 16. Philips Gloeilampen-Fabriek, N.V. 1,066,182.

Preparation of retro-steroids. Philip Gloeilampen-Fabriek, N.V. 1,066,183.

5a-pregnano-(3,2-c) pyrazole compounds. Merck & Co., Inc. 1,066,184.

Compositions for the treatment of dandruff. Revlon, Inc. 1,066,207.

British patent specifications relating to the above will be obtainable, (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from April 19.

### From the "Official Journal (Patents)," March 15

Chlorothiabicycloalkane-dioxides. Upjohn Co. 1,066,254.

Process for preparing crystalline zeolites. W. R. Grace & Co. 1,066,258.

Diazepine derivatives. Dr. A. Wander, S.A. 1,066,266.

Sulpho-succinate compounds, their employment and preparation. Rewo Chemische Fabrik, G.m.b.H. 1,066,267.

Process for the preparation of phenyl-cyclohexyl-alkylamines. C. F. Boehringer & Soehne, G.m.b.H. 1,066,300.

Amino-steroid compounds and processes for their preparation. Roussel-Uclaf. 1,066,301.

Amino steroid compounds and processes for their preparation. Roussel-Uclaf. 1,066,302-03.

Preparation of trialkylphosphines. M. & T. Chemicals, Inc. 1,066,309.

Method for preparing guanine and its derivatives. Kyowa Hakko Kogyo Co., Ltd. 1,066,325.

Derivatives of 7-amino-cephalosporamic acid and process for their manufacture. CIBA, Ltd. 1,066,347.

Aerosol dispenser. Valve Corporation of America. 1,066,368.

Method of producing progesterone derivatives and compounds produced thereby. Ortho Pharmaceutical Corporation. 1,066,392-93.

Phosphorus acid derivatives and their use as stabilisers. Imperial Chemical Industries, Ltd. 1,066,404.

Process for the manufacture of neutral polyphosphoric ester anhydrides. Farbwerke Hoechst, A.G. 1,066,405.

Nitrogen-containing thioesters. Rohm & Haas, G.m.b.H. 1,066,408.

Imidazole derivatives and a process for the manufacture thereof. F. Hoffmann-La Roche & Co., A.G. 1,066,409.

Apparatus for sealing small objects for example tablets between two aluminium foils. Hamac-Hansella, A.G. 1,066,429.

Iodophors. W. C. Evans & Co. (Eccles), Ltd. 1,066,437.

1-cyclo-alkoxy-2(1H)-pyridones. Upjohn Co. 1,065,445.

Unsaturated sulphonic acids and salts thereof. Monsanto Co. 1,066,458.

Diagnostic aid. Warner-Lambert Pharmaceutical Co. 1,066,459.

1-oxygenated steroid compounds and process means for producing the same. Parke, Davis & Co. 1,065,466.

Process in the recovery of plasminogen from animal serum or animal plasma. Novo Therapeutisk Laboratorium, A/S. 1,066,467.

Sulphation of aliphatic alcohols, and related compounds. Unilever, Ltd. 1,066,505.

Pyrrrole derivatives and process for their manufacture. CIBA, Ltd. 1,066,604.

Substituted acetamides, and the use thereof as herbicides. Stauffer Chemical Co. 1,066,606.

Derivatives of benzamide. Lovens Kemiske Fabrik Produktionsaktieselskab. 1,066,607.

Packaging of articles in blister packs. Aspro-Nicholas, Ltd. 1,066,614.

Compositions for anorectic use. A. J. S. Evans (CIBA, Ltd.). 1,066,616.

Oxido androstanes. Parke, Davis & Co. 1,066,658.

Pharmaceutical preparations. V. Lafon. 1,066,669.

Preparation of fluoro compounds. Allied Chemical Corporation. 1,066,679.

Fluorine compound manufacture. Allied Chemical Corporation. 1,066,680.

Process for the preparation of steroidal tertiary ether glycols and compounds produced thereby. Ortho Pharmaceutical Corporation. 1,066,705.

Vitamins, salts preparations containing them and a process for their manufacture. S. Bago. 1,066,706.

6-substituted pregnanes. Parke, Davis & Co. 1,066,729.

3,16,20-substituted-pregnanes. Abbott Laboratories. 1,066,746.

Surgical devices. Sorenson Research Corporation. 1,066,751.

Magnesium salts of succinic esters and emulsions containing the same. L'Oreal. 1,066,758.

Detergent compositions. Henkel & Cie, G.m.b.H. 1,066,764.

Fertilizer. Fisons Fertilizers, Ltd. 1,066,785.

Compositions comprising biocidal quaternary ammonium benzosulphimides. Hollichem Corporation. 1,066,795.

Piperridyl hydrazines and processes for the preparation thereof. Sandoz Patents, Ltd. 1,066,805.

Fungicidal compositions. Stauffer Chemical Co. 1,066,825.

Pregnene derivatives and their preparation. Ayerst, McKenna & Harrison, Ltd. 1,066,835.

Therapeutic agent and compositions having the inhibitory action for  $\beta$ -glucuronidase and method of inhibiting  $\beta$ -glucuronidase. Zaidan Hozin Tokyo Seikagako Kenkyukai. 1,066,885.

Pouring device for liquid containers. G. R. P. Gregory. 1,066,912.



Pharmaceutical compositions comprising lactams. U.C.B. (Union Chimique-Chemische Bedrijven), S.A. 1,066,887.

Hydrazine derivatives and process for preparing same. CIBA, Ltd. 1,066,926.

Cosmetic products. Roger Et. Gallet. 1,066,927  
Anaesthetic compositions. Dow Chemical Co. 1,067,055.

British patent specifications relating to the above will be obtainable, (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from April 26.

## PRINT AND PUBLICITY

ADVERTISEMENTS for artificial eye lashes on cinema screens by R. Brandt & Co. (Manufacturing), Ltd., Stanmore Middlesex, are believed the first of their kind.

**REDESIGNED:** The Glaxo "Mother and Baby" book has been redesigned, and is now in the format shown (smaller than the previous edition and easier and more convenient for mothers to handle. Cover features the "Clever Mum" highlighted in the company's current baby-foods advertising campaign. Line drawings illustrating the art of good mothercraft are reproduced throughout the 127 pages. The book, priced at 1s. 0d., is obtainable from Glaxo Laboratories, Ltd., Greenford, Middlesex.



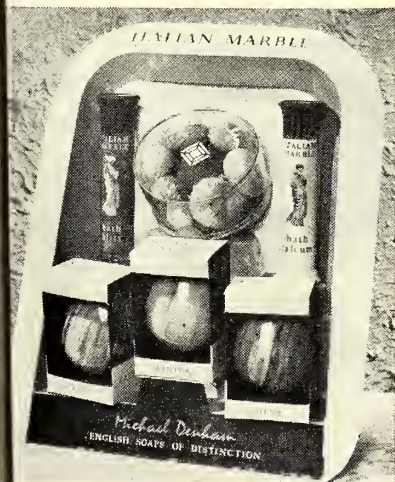
### PRESS ADVERTISING

ALBRIGHT & WILSON (MFG.), LTD., 1 Knightsbridge Green, London, S.W.1. Calgon water softener. In *Woman*, *Woman's Own* and *Radio Times*.

CARTER PRODUCTS, Wear Bay Road, Folkestone, Kent, Nair. In women's magazines.  
CUSSONS SONS & CO., LTD., Kersal Vale, Manchester. Badedas. In *Vogue*, *Nova*, *Queen*, *Harper's Bazaar* and *Sunday Times Colour Supplement*.

DEXSON, GERRARD & CO., LTD., Oldbury, Birmingham. Carnation corn caps. In *News of the World*, *People*, *Sunday Mirror*, *Scottish Sunday Post*, *Belfast Telegraph*, *Woman's Own*, *Woman's Realm*, *Woman's Weekly*, *Woman and Home*.

EUCRYL, LTD., 7 Oakley Road, Southampton, Hants: Mothaks. In national daily and Sunday Press and women's magazines.



**SERIES ON VIEW:** Display stand now available to stockists of the Italian Marble series from Michael Denham, Ltd., 16 Robert Adam Street, London, W.1.

MICHAEL DENHAM, LTD., 16 Robert Adam Street, London, W.1: Italian Marble series. In personal columns of *Daily Telegraph*, *Times*, *Guardian*, *Scotsman*, *Sunday Times*, *Sunday Telegraph* and *Observer*. Also title corners in *London Evening News* and *Evening Standard*.

MINNESOTA MINING & MANUFACTURING CO., LTD., 3M House, Wigmore Street, London, W.1. Ferrania 3M colour films. In *Woman's Own*, *Woman's Realm*, *Weekend Telegraph*, *Woman*, 8mm. Magazine, *Readers' Digest* and *Amateur Photographer*.

THOS. GUEST & CO., LTD., 92 Carruthers Street, Ancoats, Manchester, 4. Sure Shield laxatives. In *Woman*, *Woman and Home*, *My Home and Family*, *Woman's Own*, *Woman's Realm* and *Woman's Weekly*.

### Publications

#### Booklets and Leaflets

WEST-SILTEN PHARMACEUTICALS, LTD., Hove, Sussex. "Ponoxylan eardrops, gel, derm" 6-p. folder).

ZYMA (U.K.) LTD., Catteshall Lane, Godalming, Surrey. "Bad legs" . . . early relief . . . Paroven" (22-p. booklet).



**ON SHOW:** Display stand available from Beecham Toiletries Division, Great West Road, Brentford, Middlesex, for Cool Charm roll-on deodorant.

## COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

### Monday, April 10

COLCHESTER BRANCH, PHARMACEUTICAL SOCIETY, Jacklins' restaurant, High Street, Colchester, at 8 p.m. Annual meeting.

### Tuesday, April 11

COVENTRY AND WARWICKSHIRE BRANCH, NATIONAL PHARMACEUTICAL UNION, Fletch hotel, Fletchamstead Highway, Coventry, at 7.45 p.m. Annual meeting followed by an address by Mr. L. Jacobs (a member of the Executive).

DONCASTER BRANCH, PHARMACEUTICAL SOCIETY, Rockingham hotel, Doncaster, at 7.30 p.m. Dinner followed by Mr. H. Herdman (Glaxo Laboratories, Ltd.) on "British Pharmacy and the Common Market."

EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, Claybury Hospital, Woodford Green, at 8 p.m. Dr. E. Morgan (consultant psychiatrist) on "Drug Treatment in Psychiatric Disorders." (Lecture course.)

LONDON BRANCH GUILD OF PUBLIC PHARMACISTS, Auditorium, Wellcome Building, 183 Euston Road, London, N.W.1, at 7.30 p.m. Mr. S. F. Hall (Committee on Safety of Drugs) on "Relevance of Quality Control to the Assessment of Drug Safety."

MEDICINES — WITH CARE EXHIBITION, Great Barn, Ruislip, Middlesex. Until April 15. 10.30 a.m. to 8 p.m. (Saturday 4.30 p.m.)

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH, NATIONAL PHARMACEUTICAL UNION, Star hotel, Worcester, at 8 p.m. Annual meeting.

### Wednesday, April 12

INSTITUTION OF THE RUBBER INDUSTRY, AND PLASTICS INSTITUTE, Polygon hotel, Southampton, at 7.00 p.m. Mr. L. Golberg (British Industrial Biological Research Association) on "Importance and Control of Chemical Toxicity in Rubber and Plastics."

PHARMACEUTICAL GROUP, ROYAL SOCIETY OF HEALTH, 90 Buckingham Palace Road, London, S.W.1, at 7.30 p.m. Mr. A. G. M. Madge (Treasurer, Pharmaceutical Group Committee) on "Pharmacy and the Common Market."

STOCKPORT BRANCH, PHARMACEUTICAL SOCIETY, Deanwater hotel, Stockport at 7.30 p.m. Supper Dance.

SWANSEA AND WEST GLAMORGAN BRANCH, PHARMACEUTICAL SOCIETY, Dolphin hotel, Swansea, at 7.45 p.m. Members' night.

### Thursday, April 13

BRITISH MEDICAL ASSOCIATION, Londonderry. Annual clinical meeting. Until April 16.

BRITISH STANDARDS INSTITUTION, Imperial College, London, S.W.7. Annual standards conference. Until April 14.

CHELTENHAM BRANCH, PHARMACEUTICAL SOCIETY, Board room, United Chemists Association, Ltd., Cheltenham, at 8 p.m. Annual meeting.

DURHAM BRANCH, PHARMACEUTICAL SOCIETY, Three Tuns hotel, Durham City, at 8 p.m. Annual meeting.

GLASGOW AND WEST OF SCOTLAND BRANCH, PHARMACEUTICAL SOCIETY, Room 24, University of Strathclyde, Glasgow, C.1, at 7.45 p.m. Annual meeting.

LEEDS BRANCH, PHARMACEUTICAL SOCIETY, Griffin hotel, Leeds, at 8 p.m. Discussion of Branch resolutions.

NORTHUMBRIAN BRANCH, PHARMACEUTICAL SOCIETY, Black Bull hotel, Morpeth, at 8 p.m. Annual meeting.

PROPRIETARY ARTICLES TRADE ASSOCIATION, Connaught rooms, Great Queen Street, London, W.C.2, at 2.45 p.m. Annual meeting.

SYMPOSIUM ON RETAIL PHARMACY, Kings Head hotel, Market Place, Romford, Essex, at 2.30 p.m. (Ticket only. For details see C. & D., April 1, p. 319).

WOKING BRANCH, PHARMACEUTICAL SOCIETY, Red House hotel, Woking, at 8 p.m. Annual meeting.

### Friday, April 14

EXETER BRANCH, PHARMACEUTICAL SOCIETY, Annual meeting postponed to May 5.

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, Royal Institution, Colquitt Street, Liverpool, at 7.30 p.m. Annual meeting.

### Sunday, April 16

YORKSHIRE WEST RIDING AREA PHARMACEUTICAL SOCIETY BRANCHES, University of Bradford, Richmond Road, Bradford, at 10 a.m. Regional conference. Speakers: Mr. A. Aldington (vice-president, Pharmaceutical Society) on "Planned Distribution of Pharmacies" and Mr. H. W. Tanski (visiting senior lecturer in pharmacy practice, Bradford University) on "The Need for Scientific Management in Pharmacy."

### Advance Information

TECHNICAL UNION OF ITALIAN PHARMACISTS, Stresa, Italy. April 29 to May 2. Secretariat: Congresso Nazionale U.T.I. Far., presso: U.T.I. Far., Via Balbi, 29-4, Genova, Italy.

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Pearson House, Nottingham General Hospital, Nottingham, at 10.15 a.m. on May 7. Symposium on "The Stress of Modern Living." Pharmacists and medical practitioners in the Nottingham region have been invited, others wishing to attend should apply to Mrs. S. T. Dickinson, 42 Rufford Avenue, Bramcote, Beeston, Nottingham.



